DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE

FILE P.I. # 621340-
NH000-0057-01(010)
Fannin County
GDOT District 6 - Cartersville
SR 5 from SR 2/SR 515/Blue Ridge N to Old Flowers Road

OFFICE Design Policy & Support

DATE 8/31/2017

FROM for Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT **APPROVED CONCEPT REPORT**

Attached is the approved Concept Report for the above subject project.

Attachment

DISTRIBUTION:

Hiral Patel, Director of Engineering
Joe Carpenter, Director of P3
Albert Shelby, Director of Program Delivery
Darryl VanMeter, Assistant Director of P3/State Innovative Delivery Administrator
Kim Nesbitt, Program Delivery Administrator
Bobby Hilliard, Program Control Administrator
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Lisa Myers, State Project Review Engineer
Monica Flournoy, State Materials and Testing Administrator
Patrick Allen, State Utilities Engineer
Benny Walden, Statewide Location Bureau Chief
DeWayne Comer, District Engineer
David Acree, District Preconstruction Engineer
Jun Birnkammer, District Utilities Engineer
Nebyou Negash, Project Manager
BOARD MEMBER - 9th Congressional District

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
PROJECT CONCEPT REPORT

Project Type:	Widening	P.I. Number:	621340
GDOT District:	6	County:	Fannin
Federal Route Number:	N/A	State Route Number:	SR 5
Project Number:	NH000-0057-01(010)		

SR 5 widening and reconstruction from SR 2/SR 515 (Blue Ridge) to Old Flowers Road

Report updated 06/30/2017

Submitted for approval:

Ryan Triick, P.E., Jacobs — Date: 3.29.2017

State Program Delivery Administrator — Date: 4/6/2017

GDOT Project Manager — Date: 3-29-2017

Recommendation for approval:

✱ **Eric Duff/AT** — State Environmental Administrator — Date: **4/7/2017**

✱ **Christopher Raymond/AT** — for State Traffic Engineer — Date: **5/25/2017**

✱ **Erik Rohde/AT** — for Project Review Engineer — Date: **4/20/2017**

✱ **Kevin D. Cowan Jr./AT** — for State Utilities Engineer — Date: **4/11/2017**

District Engineer — Date

✱ **Bill DuVall/AT** — State Bridge Engineer — Date: **4/10/2017**

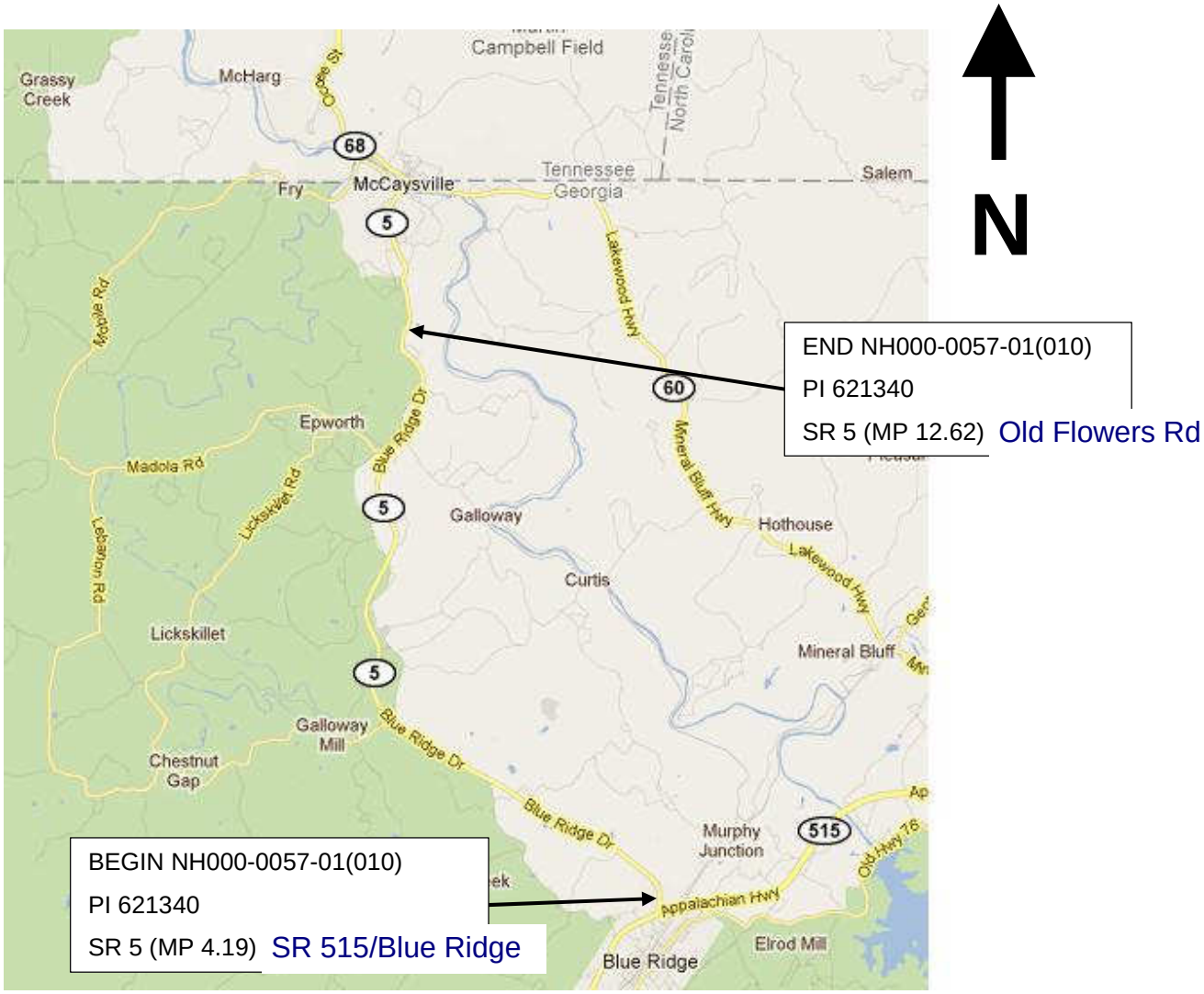
☐ MPO Area: This project is consistent with the MPO adopted Regional Transportation Plan (RTP)/Long Range Transportation Plan (LRTP).

☒ Rural Area: This project is consistent with the goals outlined in the Statewide Transportation Plan (SWTP) and/or is included in the State Transportation Improvement Program (STIP).

✱ **Cynthia L. VanDyke/AT** — State Transportation Planning Administrator — Date: **4/11/2017**

✱ **Recommendations on File**

PROJECT LOCATION MAP



PLANNING AND BACKGROUND

Project Justification Statement:
The primary purpose of the proposed project is to provide additional capacity for existing and future travel demand and to reduce crash frequency and severity along State Route (SR) 5 from just north of Blue Ridge to Old Flowers Road.

The Average Daily Traffic (ADT) for the proposed project corridor is as follows:

	2015 (ADT)	2023 (ADT)	2043 (ADT)
SR 5 near SR 515/Appalachian Hwy	17,045	18,455	22,520
SR 5 near Professional Road	12,620	13,735	16,755
SR 5 near Kell Lane	9,495	10,280	12,545
SR 5 near McCaysville Industrial Drive (just south of Old Flowers Road)	10,000	10,825	13,230

Improvements are needed to accommodate current and future traffic volumes along the SR 5 corridor. The project will also enhance economic development opportunities within Fannin County and the Appalachian region in Georgia. In addition, providing operational improvements along the corridor may lessen crash frequency and severity. Near the southern end of the project corridor, Fannin Regional Hospital, Mercier Orchards, Walmart, Home Depot, and other commercial destinations all generate trips along this segment of roadway. As the roadway continues north, the corridor includes more residential areas with smaller businesses scattered throughout.

Existing conditions:
SR 5, from SR 2/SR 515, in Blue Ridge, to Old Flowers Road is a two lane roadway with 12-foot lanes. The posted speed limit is 45 MPH within the city limits of Blue Ridge. Leaving the city limits, the posted speed limit increases to 55 MPH for approximately 7.8 miles before dropping back down to 45 MPH approaching the McCaysville city limits. The speed limit then drops to 35 MPH in the city limits of McCaysville. The shoulders are variable width rural, from SR 2/SR 515 to the city limits of McCaysville; within the city limits of McCaysville the shoulder varies between rural and urban. Along the corridor, approximately 2 miles of passing lanes currently exist and the existing intersections include various turning lanes.

Other projects in the area:
PI 620490 – McCaysville Truck Bypass, SR 5 from the northern terminus of PI 621340 on SR 5 (Fannin County, GA) to TN SR 68 (Polk County, TN);
PI 0010677 – Upgrading Bike/Pedestrian facilities on East Main St., from Depot St. to Mountain St., in Blue Ridge

MPO: N/A **TIP #:** N/A

Congressional District(s): 9

Federal Oversight: ☐ PoDI ☐ Exempt ☒ State Funded ☐ Other

Projected Traffic: ADT 24 HR T: 9 %
Current Year (2015): 17,045 Open Year (2023): 18,455 Design Year (2043): 22,520
Traffic Projections Performed by: Jacobs Engineering Group
Date approved by the GDOT Office of Planning: Submitted Dec 2016

Functional Classification (Mainline): Rural Principal Arterial

Complete Streets - Bicycle, Pedestrian, and/or Transit Standard Warrants:
Warrants met: ☐ None ☒ Bicycle ☐ Pedestrian ☐ Transit

In consideration of GDOT's Complete Street policy, an assessment of existing and planned bicycle facilities was performed. Table below shows the bicycle warrant analysis per the Complete Street Policy.

Standard Criteria	Warrant Check	Notes
Project is on a designated (i.e. adopted) U.S., State, regional or local bicycle route	Local – Listed on 2005 Regional Bike Plan	Fannin County Chamber of Commerce publishes several road bike routes utilizing the southern portion of PI 621340 on SR 5. http://www.blueridgemountains.com/biking.html
Existing bikeway along or linking to the end of the project corridor (e.g. shared lane, paved shoulder, bike lane, bike boulevard, or shared-use path)	No	
Corridor with bicycle travel generators and destinations (i.e. residential neighborhoods, commercial centers, schools, colleges, scenic byways, public parks, transit stops/stations, etc)	Potentially Meets Warrant	A large commercial area (retail and restaurants) is located near the southern terminus of PI 621340 near Hwy 515 in the vicinity of historic Blue Ridge.
On projects where a bridge deck is being replaced or rehabilitated and the existing bridge width allows for the addition of a bikeway with eliminating or precluding needed pedestrian accommodations	No	
Occurrence of reported bicycle crashes which equals or exceeds a rate of five for a 1-mile segment of roadway, over the most recent three years for which crash data is available	[None Reported]	To be determined, based on crash data.

Is this a 3R (Resurfacing, Restoration, & Rehabilitation) Project? ☒ No ☐ Yes

Pavement Evaluation and Recommendations

Initial Pavement Evaluation Summary Report Required?		☐ No	☒ Yes
Initial Pavement Type Selection Report Required?		☐ No	☒ Yes
Feasible Pavement Alternatives:	☐ HMA	☐ PCC	☒ HMA & PCC

DESIGN AND STRUCTURAL

Description of the proposed project:

This project proposes to widen the existing SR 5 in Fannin County, Georgia, beginning just north of the intersection with SR 2/SR 515, in Blue Ridge, and ending approximately 8.3 miles north, near the intersection of Old Flowers Road. The proposed project would widen SR 5 to four (4) lanes (12-foot outside lane & 11-foot inside lane) with a 14-foot center turn lane from SR 2/SR 515 to McCaysville Industrial Drive. The project would then transition to two 12-foot lanes to match the existing pavement ending at Old Flowers Road. Outside shoulders would be 10-foot wide (6.5 feet of paved shoulder including a 4-foot, 2-inch bike lane) for both sections. Bridge culverts over Sugar Creek and Little Sugar Creek are expected to be extended.

Major Structures:

Structure	Existing	Proposed
111-0004-0 1.5 mi N of Blue Ridge	*Bridge Culvert – 32 ft length along road, 10 ft x 11 ft opening, 3 barrels, 49 ft cross length, two 12 ft lanes, 8 ft rural shoulders, no guardrail or side barriers, Suff. Rating 88.32*	*Extend Existing Bridge Culvert - 32 ft length along road, 10 ft x 11 ft opening, 3 barrels, 110 ft cross length, four 12 ft lanes, 14 ft flush median, 15.5 ft rural shoulders, add guardrail both sides*
111-0003-0 2.0 mi N of Blue Ridge	*Bridge Culvert – 29 ft length along road, 9 ft x 7 ft opening, 3 barrels, 92 ft cross length, two 12 ft lanes, 8 ft rural shoulders, no guardrail or side barriers, Suff. Rating 96.19*	*Extend Existing Bridge Culvert - 29 ft length along road, 9 ft x 7 ft opening, 3 barrels, 110 ft cross length, four 12 ft lanes, 14 ft flush median, 15.5 ft rural shoulders, add guardrail both sides*

Mainline Design Features: SR 5/Blue Ridge Drive

SR 5 – From SR 515 to McCaysville Industrial Drive

Feature	Existing	Policy*	Proposed
Typical Section:			
- Number of Lanes	2		4
- **Lane Width(s)**	**12-ft**	**11-12-ft**	**11-12-ft**
- **Median Width & Type**	**None**	**n/a**	**14 ft flush**
- **Outside Shoulder Width**	**Rural / Variable width (2-ft or less paved common)**	10 ft **6.5 ft** Paved	10 ft **6.5 ft** Paved
- **Outside Shoulder Slope**	**Varies**	**6%**	**6%**
- **Inside Shoulder Width**	**None**	**2 ft**	**None**
- **Sidewalks**	**None**	**None**	**None**
- Auxiliary Lanes	Varies – Left/Right Turn Lanes & Passing Lanes		Right Turn Lanes Center Turn Lane
- **Bike Accommodation**	**None**	**4-ft**	**4-ft 2-in**
Posted Speed	35 MPH /		45 MPH /

	55 MPH		55 MPH
Design Speed	**Varies from 35 MPH to 55 MPH**		**Varies 45 MPH / 55 MPH**
Minimum Horizontal Curve Radius	**1150-ft**	**643-ft (45 MPH) 1060 (55 MPH)**	**643-ft (45 MPH) 1100 (55 MPH)**
Maximum Superelevation Rate	**7%**	**6%**	**6%**
Maximum Grade	**8%**	**7% (45 MPH) 6% (55 MPH)**	**7% (45 MPH) 6% (55 MPH)**
Access Control	None		By Permit
Design Vehicle	None		WB-67
Pavement Type	Asphalt		TBD

*According to current GDOT design policy if applicable

Major Interchanges/Intersections:

Progress Circle – Progress Circle westbound will consist of one right turn lane and one left turn lane. Progress Circle eastbound will consist of one right turn lane and one left turn lane. SR 5 northbound will consist of two thru lanes and one left turn lane. SR 5 southbound will consist of two thru lanes and one right turn lane. This intersection is currently signalized.

Harmony Lane/Trails End Road – Harmony Lane and Trails End Road will have a shared right/thru/left lane onto SR 5 with a stop control on both side roads. SR 5 northbound will consist of two thru lanes and one right turn lane. SR 5 southbound will consist of two thru lanes and a flush median.

Davis Road – Davis Road will have a shared right/left lane onto SR 5 with a stop condition. Davis Road will be relocated to the north to allow for better sight distance and overall operational improvement. SR 5 northbound will consist of two thru lanes. SR 5 southbound will consist of two thru lanes, one right turn lane, and a flush median.

Tall Oaks Lane – Tall Oaks Lane will have a shared right/left lane onto SR 5 with a stop condition. Tall Oaks Lane will be relocated to eliminate the current configuration. SR 5 northbound will consist of two thru lanes. SR 5 southbound will consist of two thru lanes and a flush median.

Mull Road/Hancock Road –Mull Road and Hancock Road will have a shared right/thru/left lane onto SR 5 with a stop control on both side roads. SR 5 northbound will consist of two thru lanes, one right turn lane, and one left turn lane. SR 5 southbound will consist of two thru lanes, one right turn lane, and one left turn lane.

Scenic Drive/Tom Boyd Road – Scenic Drive will have a shared right/thru/left lane onto SR 5 with a stop condition. Tom Boyd Road will have a shared thru/left lane and a right turn lane onto SR 5 with a stop condition. Slight relocation is anticipated for Scenic Drive and To Boyd Road to revise the skew angle to at least 70 degrees. SR 5 northbound will consist of two thru lanes, one right turn lane, and one left turn lane. SR 5 southbound will consist of two thru lanes, one right turn lane, and one left turn lane.

Old Highway 5 – Old Highway 5 will have a shared right/left lane onto SR 5 with a stop condition. SR 5 northbound will consist of two thru lanes and one left turn lane. SR 5 southbound will consist of two thru lanes and one right turn lane.

Highway 2/Old Highway 5 – Highway 2 and Old Highway 5 will have a shared right/left lane onto SR 5 with a stop control on both side roads. SR 5 northbound will consist of two thru lanes, one right turn lane, and one left turn lane. SR 5 southbound will consist of two thru lanes, one right turn lane, and one left turn lane.

W. Thomas Road/E. Thomas Road – W. Thomas Road and E. Thomas Road will have a shared right/thru/left lane onto SR 5 with a stop control on both side roads. SR 5 northbound will consist of one thru lane, one right turn lane, and one left turn lane. SR 5 southbound will consist of one thru lane, one right turn lane, and one left turn lane.

Professional Road – Professional Road will have a shared right/left lane onto SR 5 with a stop condition. SR 5 northbound will consist of one thru lane and one right turn lane. SR 5 southbound will consist of one thru lane and one left turn lane.

Nacoma Lane – Nacoma Lane will have a shared right/left lane onto SR 5 with a stop condition. SR 5 northbound will consist of one thru lane and one left turn lane. SR 5 southbound will consist of one thru lane and one right turn lane.

Old Highway 5 Access – Old Highway 5 Access will have a shared right/left lane onto SR 5 with a stop condition. SR 5 northbound will consist of one thru lane and one right turn lane. SR 5 southbound will consist of one thru lane and one left turn lane.

Damascus Circle – Damascus Circle will have a shared right/left lane onto SR 5 with a stop condition. SR 5 northbound will consist of one thru lane and one left turn lane. SR 5 southbound will consist of one thru lane and one right turn lane.

School Drive – School Drive will have one left lane and one right lane onto SR 5 with a stop condition. SR 5 northbound will consist of one thru lane and one left turn lane. SR 5 southbound will consist of one thru lane and one right turn lane.

Kell Lane – Kell Lane will have a shared right/left lane onto SR 5 with a stop condition. SR 5 northbound will consist of one thru lane and one right turn lane. SR 5 southbound will consist of one thru lane and one left turn lane.

Old Highway 5 – Old Highway 5 will have a shared right/left lane onto SR 5 with a stop condition. Old Highway 5 will be relocated to the south to allow for better sight distance and overall operational improvement. SR 5 northbound will consist of one thru lane and one left turn lane. SR 5 southbound will consist of one thru lane and one right turn lane.

Old Highway 5 East – Old Highway 5 East will have a shared right/left lane onto SR 5 with a stop condition. SR 5 northbound will consist of one thru lane and one left turn lane. SR 5 southbound will consist of one thru lane and one right turn lane.

Old Highway 5 West – Old Highway 5 West will have a shared right/left lane onto SR 5 with a stop condition. SR 5 northbound will consist of one thru lane and one right turn lane. SR 5 southbound will consist of one thru lane and one left turn lane.

Galloway Road –Galloway Road will have a shared right/left lane onto SR 5 with a stop condition. SR 5 northbound will consist of one thru lane and one right turn lane. SR 5 southbound will consist of one thru lane and one left turn lane.

La Vista Drive (south)–La Vista Drive will have a shared right/left lane onto SR 5 with a stop condition. Slight relocation to the north is anticipated for La Vista Drive to revise the skew angle to at least 70 degrees. SR 5 northbound will consist of one thru lane and one left turn lane. SR 5 southbound will consist of one thru lane and one right turn lane.

La Vista Drive (north) –La Vista Drive will have a shared right/left lane onto SR 5 with a stop condition. Slight relocation to the south is anticipated for La Vista Drive to revise the skew angle to at least 70 degrees. SR 5 northbound will consist of one thru lane and one left turn lane. SR 5 southbound will consist of one thru lane and one right turn lane.

Kyle Road –Kyle Road will have a shared right/left lane onto SR 5 with a stop condition. SR 5 northbound will consist of one thru lane and one right turn lane. SR 5 southbound will consist of one thru lane and one left turn lane.

McCaysville Industrial Drive – McCaysville Industrial Drive will have a shared right/left lane onto SR 5 with a stop condition. SR 5 northbound will consist of one thru lane and one left turn lane. SR 5 southbound will consist of one thru lane and one right turn lane.

Elm Street –Kyle Road will have a shared right/left lane onto SR 5 with a stop condition. SR 5 northbound will consist of one thru lane and one right turn lane. SR 5 southbound will consist of one thru lane and one left turn lane.

Lighting required: ☒ No ☐ Yes
Off-site Detours Anticipated: ☒ No ☐ Undetermined ☐ Yes

Transportation Management Plan [TMP] Required: ☐ No ☒ Yes
If Yes: Project classified as: ☒ Non-Significant ☐ Significant
TMP Components Anticipated: ☐ TTC ☐ TO ☐ PI

Is the project located on a NHS roadway? ☐ No ☒ Yes

Design Exceptions/Design Variances to FHWA or GDOT Controlling Criteria anticipated:

FHWA or GDOT Controlling Criteria	No	Undeter-mined	Yes	DE or DV	Approval Date (if applicable)
1. Design Speed	☒	☐	☐		
2. Design Loading Structural Capacity	☒	☐	☐		
3. Stopping Sight Distance[1]	~~☒~~	☐	☒	DE	
4. Horizontal Curve Radius	☒	☐	☐		
5. Maximum Grade[2]	☐	☐	☒	DE	
6. Vertical Clearance	☒	☐	☐		
7. Superelevation Rate	☒	☐	☐		
8. Lane Width	~~☒~~	☒	☐		
9. Cross Slope	☒	☐	☐		
10. Shoulder Width	☒	☐	☐		

[1] Several vertical curves on side roads do not meet the current AASHTO guidelines for K values.

[2] Several existing grades along the corridor exceed the 6% proposed maximum grade.

Vertical curve K-values and grades will be verified during preliminary design. Deficient conditions will be analyzed and corrected if feasible. However, a design exception for vertical curves and/or grades may be needed in areas where it is deemed infeasible to correct.

Design Variances to GDOT Standard Criteria anticipated:

GDOT Standard Criteria	Reviewing Office	No	Undeter-mined	Yes	Appvl Date (if applicable)
1. Access Control/Median Openings	DP&S	☒	☐	☐	
2. Intersection Sight Distance	DP&S	☒	☐	☐	
3. Intersection Skew Angle[1]	DP&S	☐	☒	☐	
4. Lateral Offset to Obstruction	DP&S	☒	☐	☐	
5. Rumble Strips	DP&S	☒	☐	☐	
6. Safety Edge	DP&S	☒	☐	☐	
7. Median Usage[2]	DP&S	☐	☐	☒	
8. Roundabout Illumination Levels	DP&S	☒	☐	☐	
- Shoulder Width		☒			
- Tangent Length on Reverse Curves		☒			

9. Complete Streets[3]	DP&S	☐	☐	☒	
10. ADA & PROWAG	DP&S	☒	☐	☐	
11. GDOT Construction Standards	DP&S	☒	☐	☐	
12. GDOT Drainage Manual	DP&S	☒	☐	☐	
13. GDOT Bridge & Structural Manual	Bridges	☒	☐	☐	

[1] Several existing skew angles are less than 70 degrees. Will improve skew angles where feasible.

[2] Table 6.3 of the GDOT DPM states that the minimum median width for design speeds greater than or equal to 55 mph is 24 feet. A 14-foot flush median will be used on this project.

[3] SR 5 is listed on City and County Pedestrian Plans. Adding sidewalk at a sufficient offset for a road with a speed design of 55 mph may not feasible.

VE Study anticipated: ☐ No ☐ Yes ☒ Completed – Date: 9/1/2016
Refer to the attached VE Implementation Letter

UTILITY AND PROPERTY

Railroad Involvement: N/A

Utility Involvements:
AT&T of Georgia - phone
Balsam West FiberNet - fiber
City of Blue Ridge – water
City of McCaysville – water
Elijay Telephone - phone
TDS Telecom – cable & phone
Tri-State EMC – power
TVA - power

SUE Required: ☐ No ☒ Yes ☐ Undetermined

Public Interest Determination Policy and Procedure recommended? ☒No ☐Yes

Right-of-Way (ROW): Existing width: 60ft. Proposed width: 120 ft.

Required Right-of-Way anticipated: ☐None ☒Yes ☐Undetermined

Easements anticipated: ☐None ☒Temporary ☒Permanent ☒Utility ☐Other

Anticipated total number of impacted parcels: 316
Displacements anticipated: Businesses: 18
Residences: 12
Other: 0
Total Displacements: 30

Location and Design approval: ☐ Not Required ☒ Required

Impacts to USACE property anticipated? ☒ No ☐ Yes ☐ Undetermined

Is Federal Aviation Administration (FAA) coordination anticipated? ☒No ☐ Yes

ROUNDABOUTS

Roundabout Lighting Commitment Letter received: ☒ No ☐ Yes

Roundabout Planning Level Assessment: The Roundabout Planning Level Assessment first checked if the traffic entering the roundabout from the major road was less than 90% of the total volume entering the roundabout and then a LOS analysis was conducted of any intersections that met this. Two intersections met the initial criteria for consideration. The two intersections are SR 5 with Old Highway 5 and Old Highway 5 East. The Old Highway 5 intersection is located approximately 2800 feet north of School Drive. The Old Highway 5 East intersection is located approximately 1000 feet south of La Vista Drive.

Roundabout Feasibility Study:
Due to the topography in this area and size of the multi-lane roundabouts, there would be significant impacts to adjacent properties including displacements of homes that would not be impacted with the construction of a conventional intersection.

Roundabout Peer Review Required: ☒ No ☐ Yes ☐ Completed – Date:

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern:
Community Concerns
Stakeholder and public meetings were held to identify community concerns. Recommendations from these meetings included reducing accidents, improving access and movement of emergency vehicles to and from Fannin County Regional Hospital, reducing congestion (especially at the southern end of the project corridor), and supporting economic growth of area.

Minimizing Property Impacts
Avoid and minimize impacts to properties, streams, wetlands and historic areas where possible.

Context Sensitive Solutions Proposed:
Community Concerns
The addition of a center turn lane and the widening of the paved shoulders will improve movement of emergency vehicles. The center turn lane provides separation between oncoming vehicles to reduce head-on collisions. Adding a center turn lane and widening SR 5/Blue Ridge Drive to four lanes will reduce congestion. The addition of left and right turn lanes will reduce rear-end collisions. Economic growth will be supported by reducing congestion. The addition of bike lanes support eco-tourism and connectivity to trails in the area. Eco-tourism was identified by the region stakeholders as a desired growth segment.

Minimizing Property Impacts
The initial typical section for the proposed SR 5 widening project included a 44-foot wide grass median. A 32-foot depressed and a 24-foot raised, grass median were also studied. These medians created significant impacts to properties including a high number of displacements. A 14-foot flush median was proposed to keep separation between vehicles traveling in opposite directions while minimizing impacts adjacent to the road.

Alternates were developed and studied that created new location alignments starting as far south as Tom Boyd Road to avoid homes, businesses, streams and wetlands adjacent to the existing SR 5. Due to the many streams in the area as well as the various neighborhoods located within close proximity to SR 5, the alternate alignments still created significant impacts and relocations. Also, relocating SR 5 away from the existing road wouldn't improve emergency access to West Fannin Regional Hospital. The alternate alignments did not provide a sufficient decrease in impacts compared with the increased construction costs. Nor does it support economic growth

The proposed design will consider the use of adjusting the road alignment and profile, retaining walls, 2:1 slopes and other design options where feasible to reduce impacts. The inside lane for both directions will be reduced to 11 feet.

ENVIRONMENTAL & PERMITS

Anticipated Environmental Document:

NEPA: ☐ PCE ☐ CE ☐ EA-FONSI ☐ EIS

GEPA*: ☐ Type A ☐ Type B ☐ EER ☒ None

*A GEPA document must be prepared only for state funded projects where the project cost meets or exceeds $100 million.

Level of Environmental Analysis:

☐ The environmental considerations noted below are based on preliminary desktop or screening level environmental analysis and are subject to revision after the completion of resource identification, delineation, and agency concurrence.

☒ The environmental considerations noted below are based on the completion of resource identification, delineation, and agency concurrence.

Water Quality Requirements:

MS4 Permit Compliance – Is the project located in a MS4 area? ☒ No ☐ Yes

Is Protected Species water quality mitigation anticipated? ☐ Yes ☒ No

Environmental Permits/Variances/Commitments/Coordination anticipated:

Permit/ Variance/ Commitment/ Coordination Anticipated	No	Yes	Remarks
1. U.S. Coast Guard Permit	☒	☐	
2. Forest Service/NPS	☒	☐	The project occurs within the Chattahoochee National Forest, however, the USFS does not own any of the lands
3. CWA Section 404 Permit	☐	☒	Individual Permit with PAR anticipated
4. Tennessee Valley Authority Permit	☒	☐	TVA owns one parcel located within the project corridor; coordination with TVA will be required but not anticipated to require a TVA permit
5. 33 USC 408 Decision	☒	☐	
6. Buffer Variance	☐	☒	Multiple stream crossing identified with possible SBV's required
7. Coastal Zone Management Coordination	☒	☐	
8. NPDES	☐	☒	
9. FEMA	☒	☐	
10. Cemetery Permit	☒	☐	
11. Other Permits	☒	☐	
12. Other Commitments	☒	☐	
13. Other Coordination	☒	☐	

Is a PAR required? ☐ No ☒ Yes ☐ Completed – Date:

**PAR preparation is underway with the PAR meeting date anticipated for June 2017.*

Environmental Comments and Information:
NEPA/GEPA: Project is state funded and exempt from GEPA documentation.

Ecology: The ecology field survey has been completed along with an aquatic survey. Multiple stream and wetland impacts are anticipated along the project corridor. A survey for protected bats is anticipated to occur in the Summer 2017. The project is anticipated to require an Individual Permit.

History: The history field survey has been completed and 14 eligible resources have been identified.

Archeology: Archaeology surveys complete and preliminary findings have determined no sites requiring avoidance and minimization considerations. OES approval anticipated in May 2017

Air Quality:

Is the project located in an Ozone Non-attainment area?	☒ No	☐ Yes
Is a Carbon Monoxide hotspot analysis required?	☒ No	☐ Yes

Noise Effects: Noise studies are not required for state funded projects. However, individual noise studies will be performed at eligible historic resources as part of the Cultural Resources Assessment of Effects (AOE).

Public Involvement:
A PIOH was held in November 17, 2011 at two locations: First Baptist Church in McCaysville and Fannin County Middle School in Blue Ridge. A total of 202 people attended the PIOH (142 people attended the meeting held in McCaysville and 60 people attended the meeting held in Blue Ridge.) A total of 85 comments were received (46 were in support of the project, 10 were opposed, 8 were uncommitted, and 21 gave conditional support.

A PIOH was held October 19, 2016 at West Fannin Elementary School. A total of 447 people attended the PIOH. A total of 123 comments were received (32 were in support of the project, 42 were opposed, 21 were uncommitted and 28 gave conditional support).

Additional public involvement is anticipated to take place in June 2017.

Stakeholder Meetings
Stakeholder meetings were held February 9, 2011 at the Fannin County Courthouse and the Fannin County Chamber of Commerce and on February 15, 2011 at Copperhill City Hall and Fannin County Regional Hospital. Minutes from each meeting and an overview of the stakeholder meetings are included in the attachments.

Major stakeholders:
Traveling Public
Fannin County Regional Hospital
West Fannin Elementary School
Historic McCaysville

CONSTRUCTION

Issues potentially affecting constructability/construction schedule:

- High traffic volumes during weekends in the fall may require off-hour construction periods.
- Fills above the existing road of 20 feet or more will make construction under traffic challenging.

Early Completion Incentives recommended for consideration: ☒ No ☐ Yes

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Initial Concept Meeting: September 30, 2010

The meeting served as an introduction of the project to the appropriate GDOT and TDOT personnel, identify stakeholders and determine a public involvement approach, gather information available to develop the conceptual design and review the purpose and need of the project.

Concept Meeting: September 16, 2016
The meeting served as a reintroduction of the project to the appropriate GDOT and TDOT personnel, discuss the progress made to-date including the various alternates, the public involvement, identify Tennessee's interest and involvement and schedule for completion of the Concept Report, preliminary engineering, right of way acquisition and construction.

Other coordination to date:

Project Activity	Party Responsible for Performing Task(s)
Concept Development	Jacobs Engineering
Design	Jacobs Engineering
Right-of-Way Acquisition	GDOT
Utility Coordination (Preconstruction)	GDOT
Utility Relocation (Construction)	Utility Owners
Letting to Contract	GDOT
Construction Supervision	GDOT
Providing Material Pits	TBD
Providing Detours	N/A
Environmental Studies, Documents, & Permits	Jacobs Engineering
Environmental Mitigation	GDOT
Construction Inspection & Materials Testing	GDOT

Project Cost Estimate Summary and Funding Responsibilities:

	PE Activities		** ROW	Reimbursable ** Utilities	CST*	Total Cost
	PE Funding	Section 404 Mitigation[1]				
Funded By	GDOT	GDOT	GDOT	GDOT	GDOT	
$ Amount	$2,000,000	$2,828,880	$	$	$60,926,758	$
Date of Estimate	Jan 2017	Mar 2017	~~Mar 2017~~	~~Mar 2017~~	Mar 2017	

*CST Cost includes: Construction, Engineering and Inspection, Contingencies and Liquid AC Cost Adjustment.

[1] ~~Mitigation costs based on purchasing 29,632 stream credits and 6 wetland credits using an In lieu Fee bank.~~

**** No Right of Way or Utility cost submitted with the concept report.**

ALTERNATIVES DISCUSSION

Alternative selection:

Preferred Alternative:

Estimated Property Impacts:	**316**	**Estimated Total Cost:**	**~~$60,673,748~~**
Estimated ROW Cost:	**$**	**Estimated CST Time:**	**30-36 Months**

Rationale:
The proposed project addresses improving the capacity, operational improvement and will enhance the economic development along the project corridor. The proposed typical section from just north of SR 515 intersection in Blue Ridge to McCaysville Industrial Drive consists of four lanes (11-foot inside lane and 12-foot outside lane) with a 14-foot flush median. From McCaysville Industrial Drive to Old

Flowers Road the typical section is reduced to a 2-lane section with a 14-foot flush median until it ties in with the existing roadway using a 2-lane section with no median. The proposed shoulders are 10-foot wide with 6.5-foot paved (including a bike lane).

The proposed alignment will follow the existing road alignment and profile and will include improvements to the horizontal and vertical curves, where feasible. The 14-foot flush median allows access for the many drives and businesses along the corridor. By following the existing alignment, the impacts and displacements are reduced in comparison with new location alignments and wider grass medians. This alternative was selected as the preferred based on several reasons: lower overall cost, reduced right of way impacts and displacements while meeting the need and purpose of this project.

No-Build Alternative:			
Estimated Property Impacts:	**0**	**Estimated Total Cost:**	**$0**
Estimated ROW Cost:	**$0**	**Estimated CST Time:**	**0**

Rationale:
This alternative does not meet the capacity, operational or economic development needs of the project.

Alternative A:

Estimated Property Impacts:	**331**	**Estimated Total Cost:**	**~~$74,995,674~~**
Estimated ROW Cost:	**$**	**Estimated CST Time:**	**30-36 Months**

Rationale:
Alternative A matches the Preferred Alternative except that it includes a 32-foot depressed grass median. The median increases the right of way and easement impacts. Due to the mountainous terrain in the project area, the wider road section will significantly increase the earthwork and right of way costs in greater proportion to the increase of the median width. A divided road will require that many vehicles to utilize u-turn movements to access their homes and the businesses along SR 5.

Alternative A was not chosen as the Preferred Alternative due to the increased right of way impacts and larger overall project cost.

Alternative B:

Estimated Property Impacts:	**283**	**Estimated Total Cost:**	**~~$88,345,400~~**
Estimated ROW Cost:	**$**	**Estimated CST Time:**	**30-36 Months**

Rationale:
Alternative B matches Alternative A except that approximately 50% of the alignment is new location. The proposed alignment for Alternative B relocates west of existing SR 5 prior to the Tom Boyd intersection. A tributary of Little Sugar Creek runs parallel to SR 5 and crosses under the road at least four times. By offsetting the proposed alignment, impacts to the Creek are minimized. The proposed alignment also relocates east of the existing SR 5 between School Drive and La Vista Drive to reduce impacts to homes, potential historic properties and another longitudinal stream in this area.

As with Alternative A, the wider median increases the right of way and easement impacts along with increased earthwork costs. The new location areas of Alternative B increase these impacts and costs even more. There is not a ridge that the proposed alignment is able to follow. The new alignment would have significant cuts and fills as it traverses over the mountainous terrain.

Alternative B was not chosen as the Preferred Alternative due to the increased right of way impacts and larger overall project cost.

Comments: Initial analysis of the various alternatives included comparing different medians. The medians included 32- and 44-foot wide depressed, grass medians, a 24-foot wide raised median and the 14-foot wide paved median currently proposed. Many other alignment locations were considered during the conceptual analysis phase. Due to the mountainous terrain in this part of the state, the wider medians and new location alignments had two similar results: significantly increased earthwork volumes and an increased right of way footprint.

LIST OF ATTACHMENTS/SUPPORTING DATA

1. Concept Layout
2. Typical sections
3. Detailed Cost Estimates:
   a. Construction including Engineering and Inspection and Contingencies
   b. Completed Liquid AC Cost Adjustment forms
   ~~c. Right-of-Way~~
   ~~d. Utilities~~
4. Crash summaries
5. Traffic diagrams
6. ~~Roundabout Data~~ **Capacity Analysis Summary**
   ~~a. Planning level assessment~~
7. Initial Concept Team Meeting Minutes
8. Concept Team Meeting Minutes
9. Stakeholder Meetings Overview and Minutes (February 2011)
10. PIOH Summary (November 2011)
11. PIOH Summary (October 2016)
12. VE Study Implementation Letter
13. VE Study (kept on file)

APPROVALS

Concur: Hial Reed
Director of Engineering

Approve: Margaret B. Pirkle 8/25/17
Chief Engineer Date

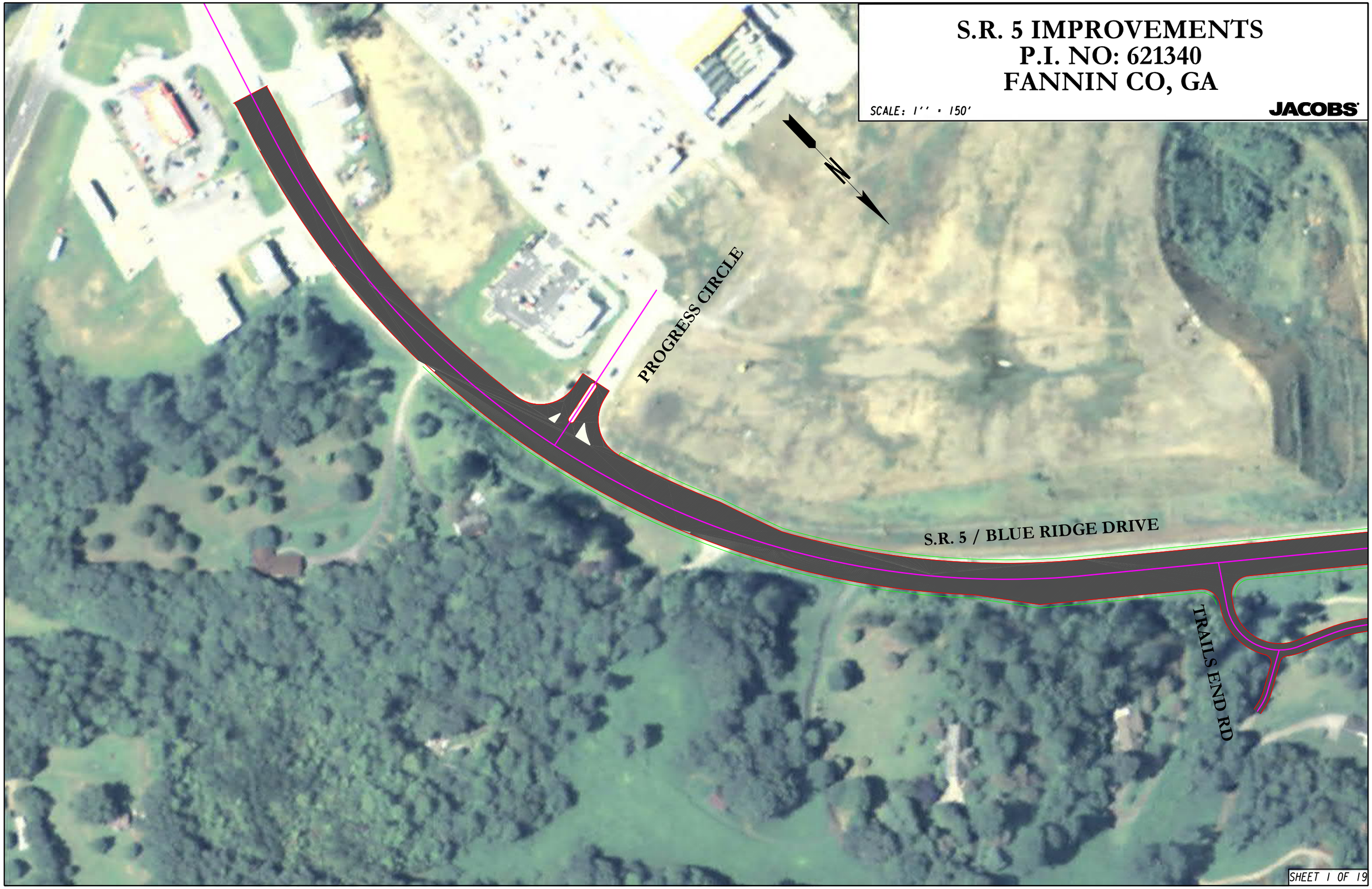
Attachment 1

Concept Layout

S.R. 5 IMPROVEMENTS
P.I. NO: 621340
FANNIN CO, GA

SCALE: 1'' = 150'

JACOBS



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FANNIN CO, GA

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JACOBS

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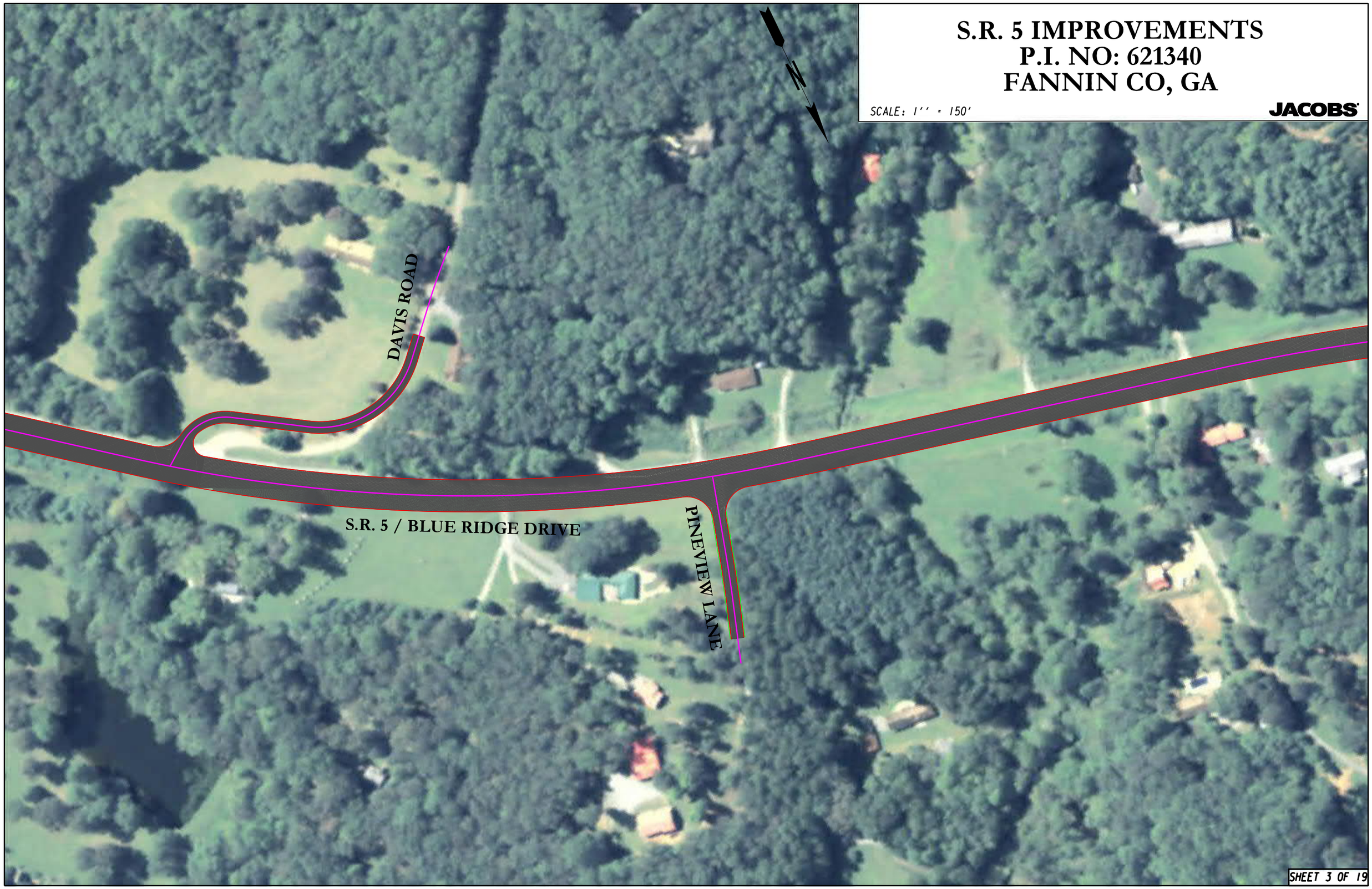

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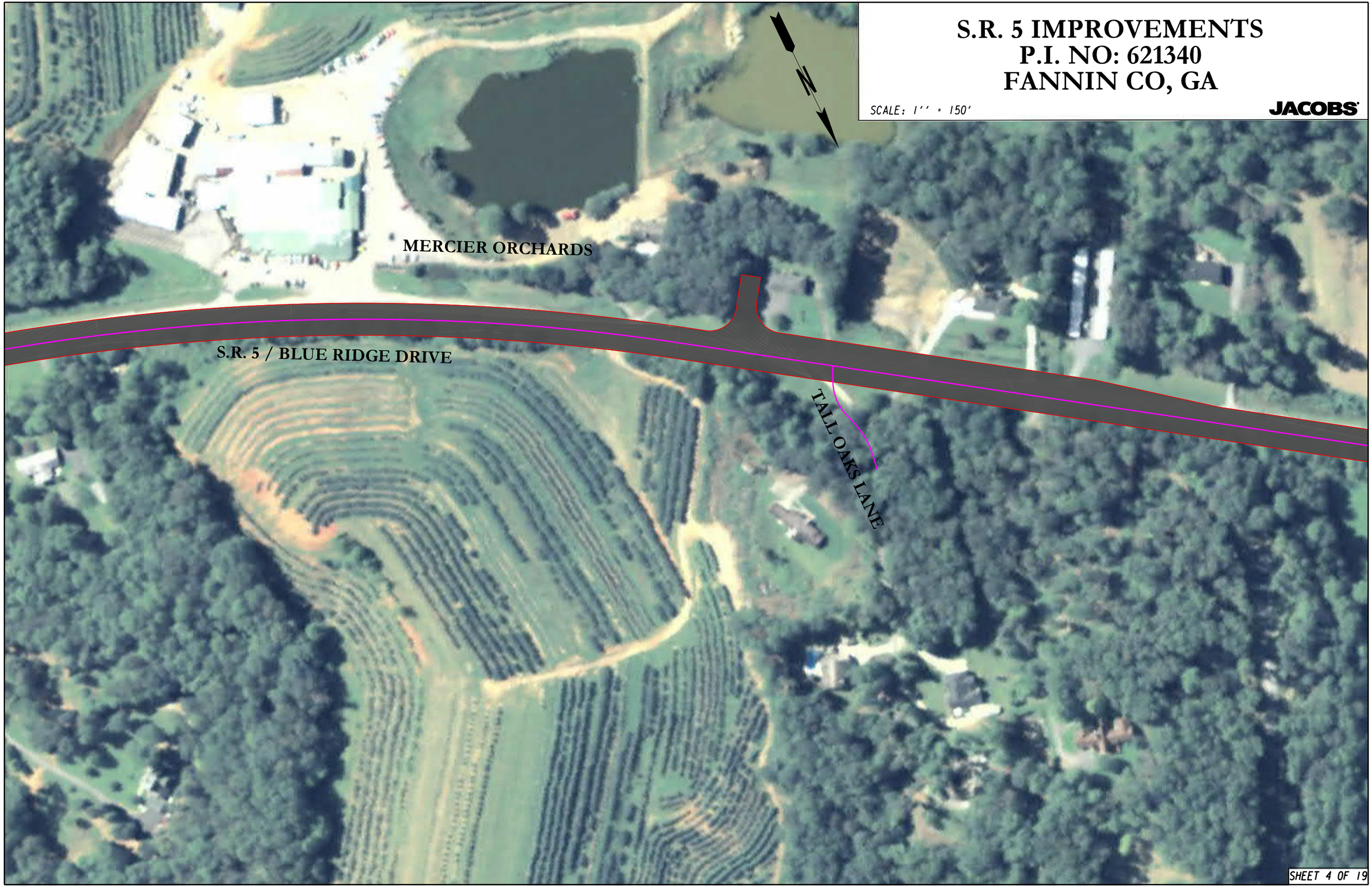

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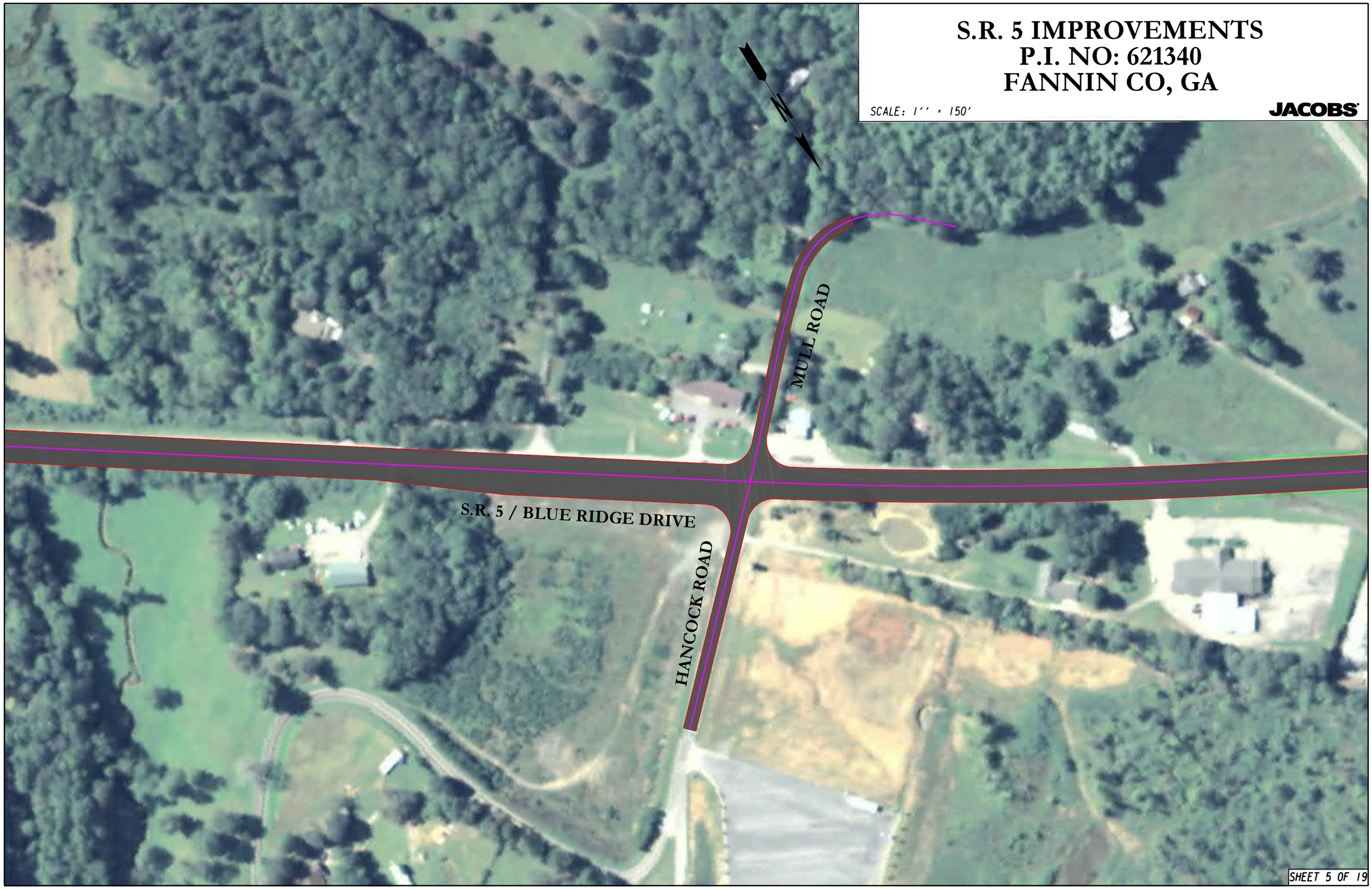

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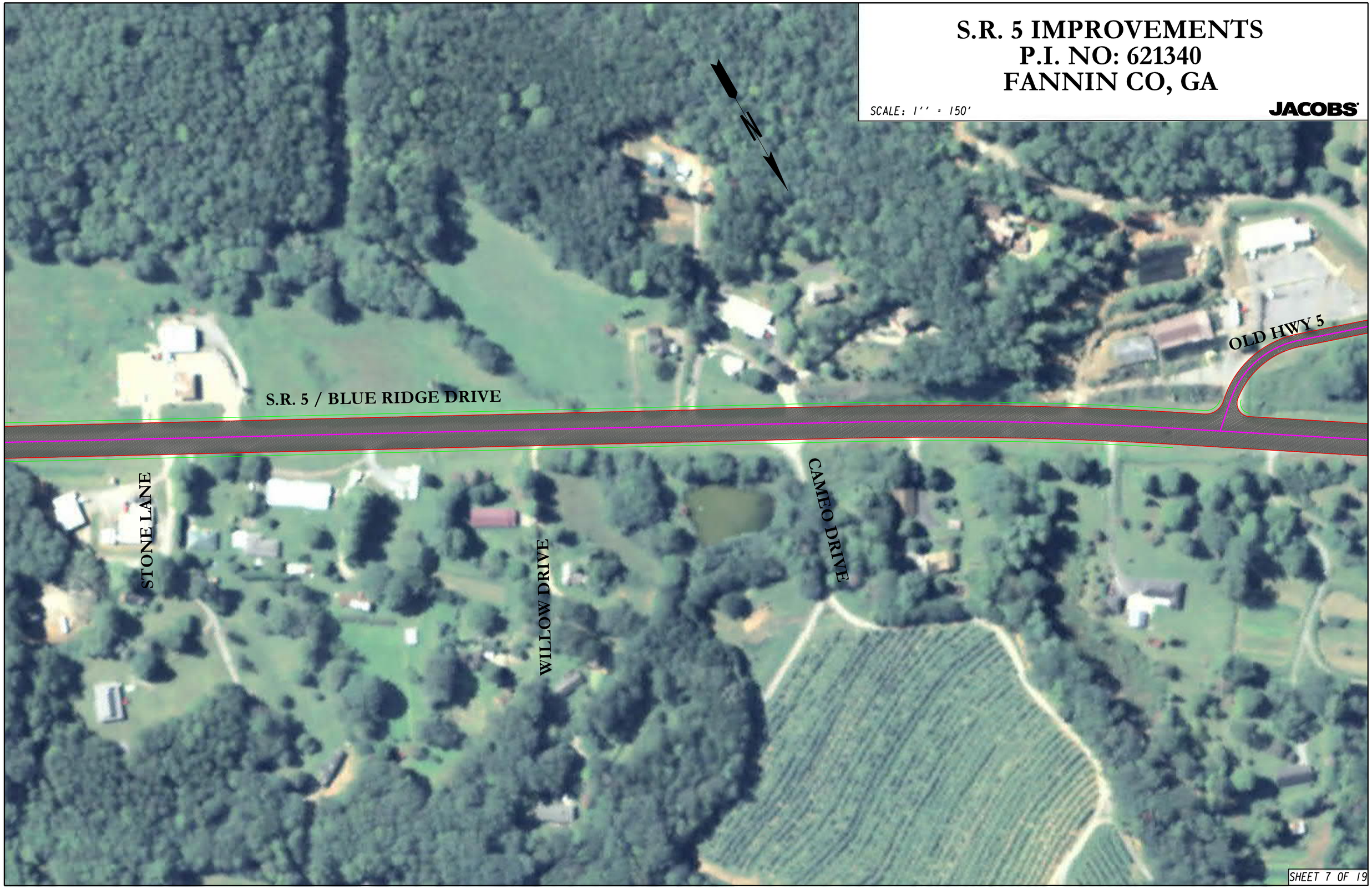

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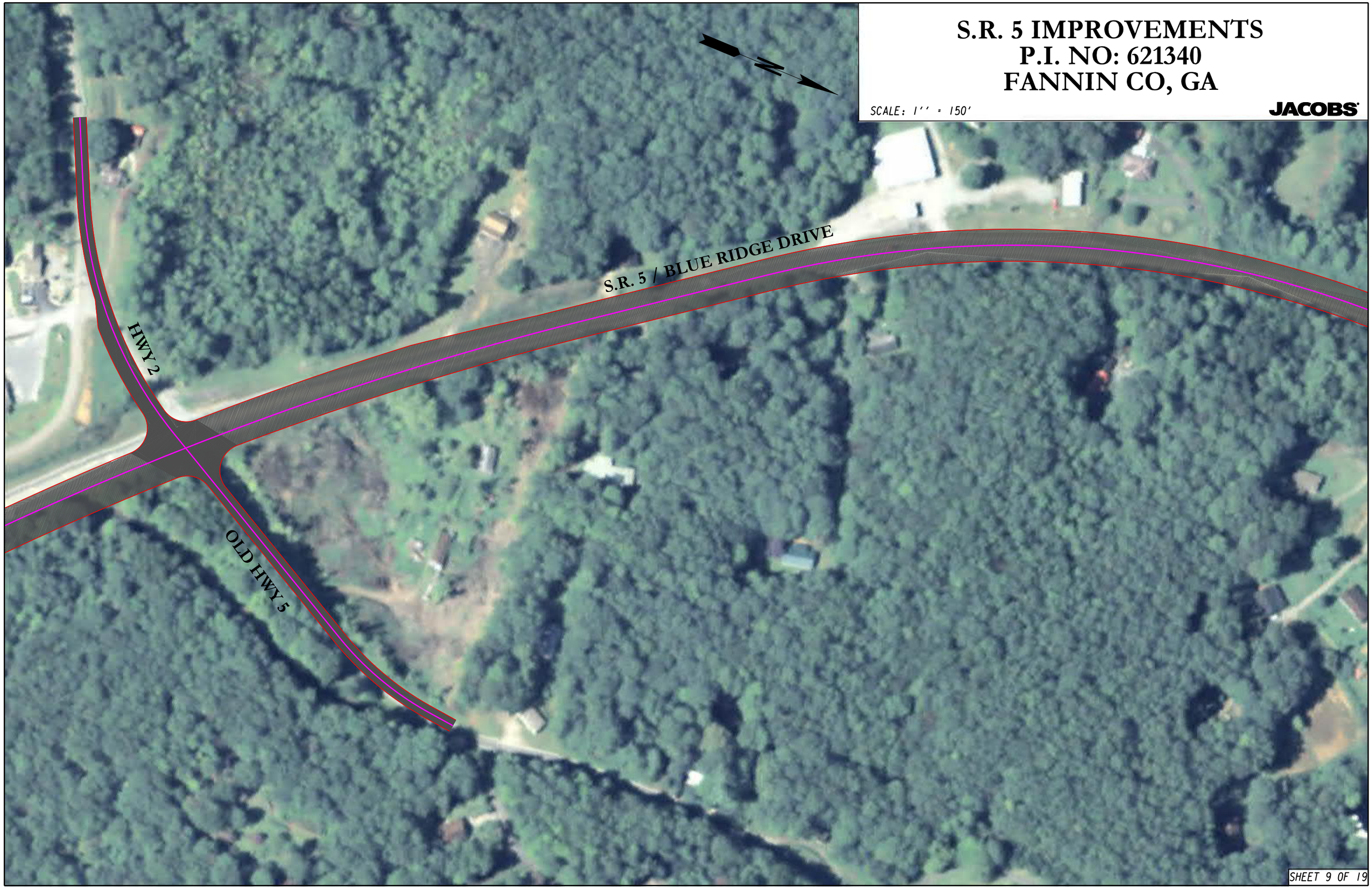

S.R. 5 IMPROVEMENTS
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FANNIN CO, GA

SCALE: 1'' = 150'

JACOBS

N

W THOMAS ROAD

ALL CREATURES PLACE

S.R. 5 / BLUE RIDGE DRIVE

NACOMA LANE

E THOMAS ROAD

PROFESSIONAL ROAD

S.R. 5 IMPROVEMENTS
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FANNIN CO, GA

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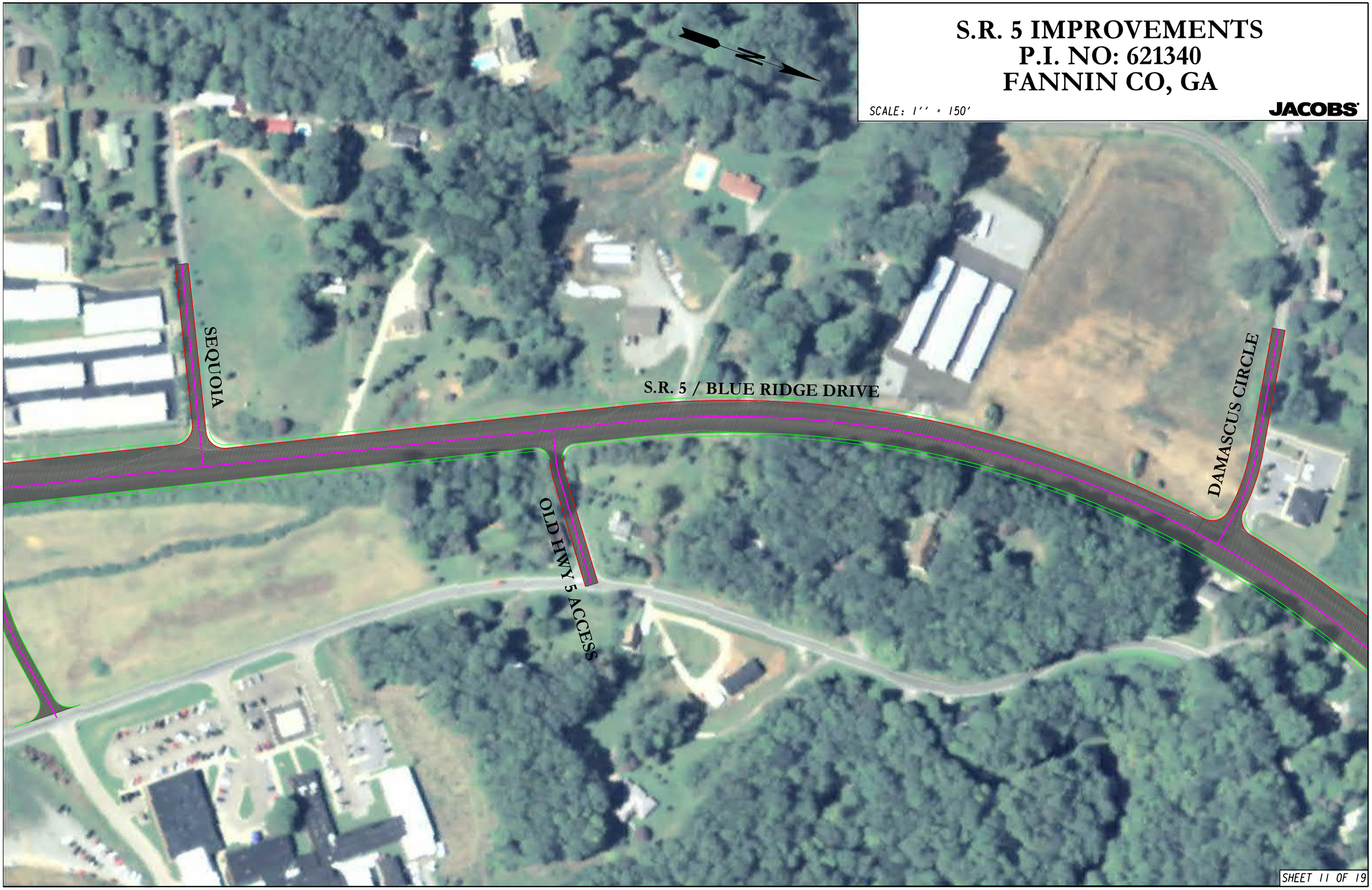

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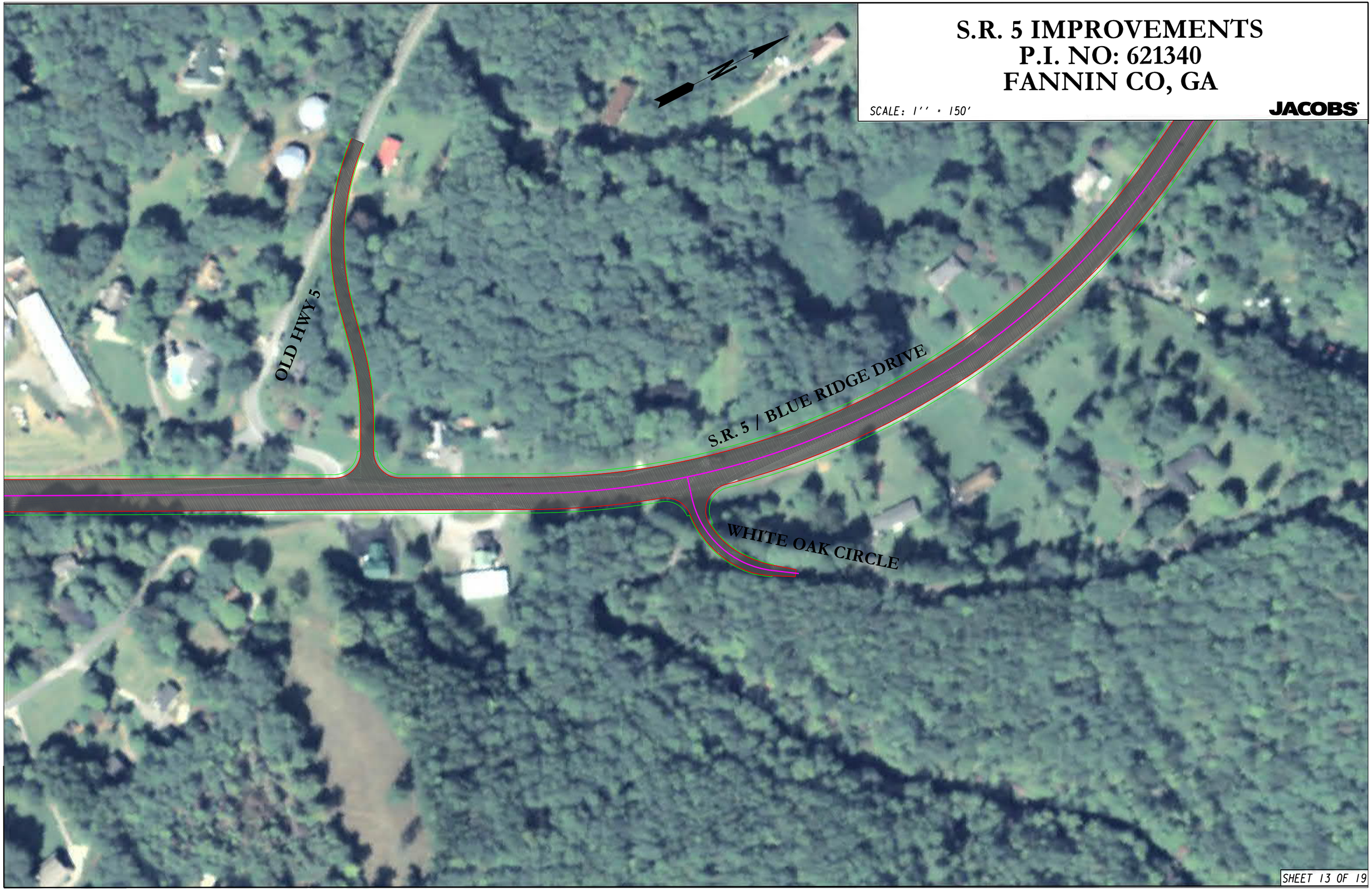

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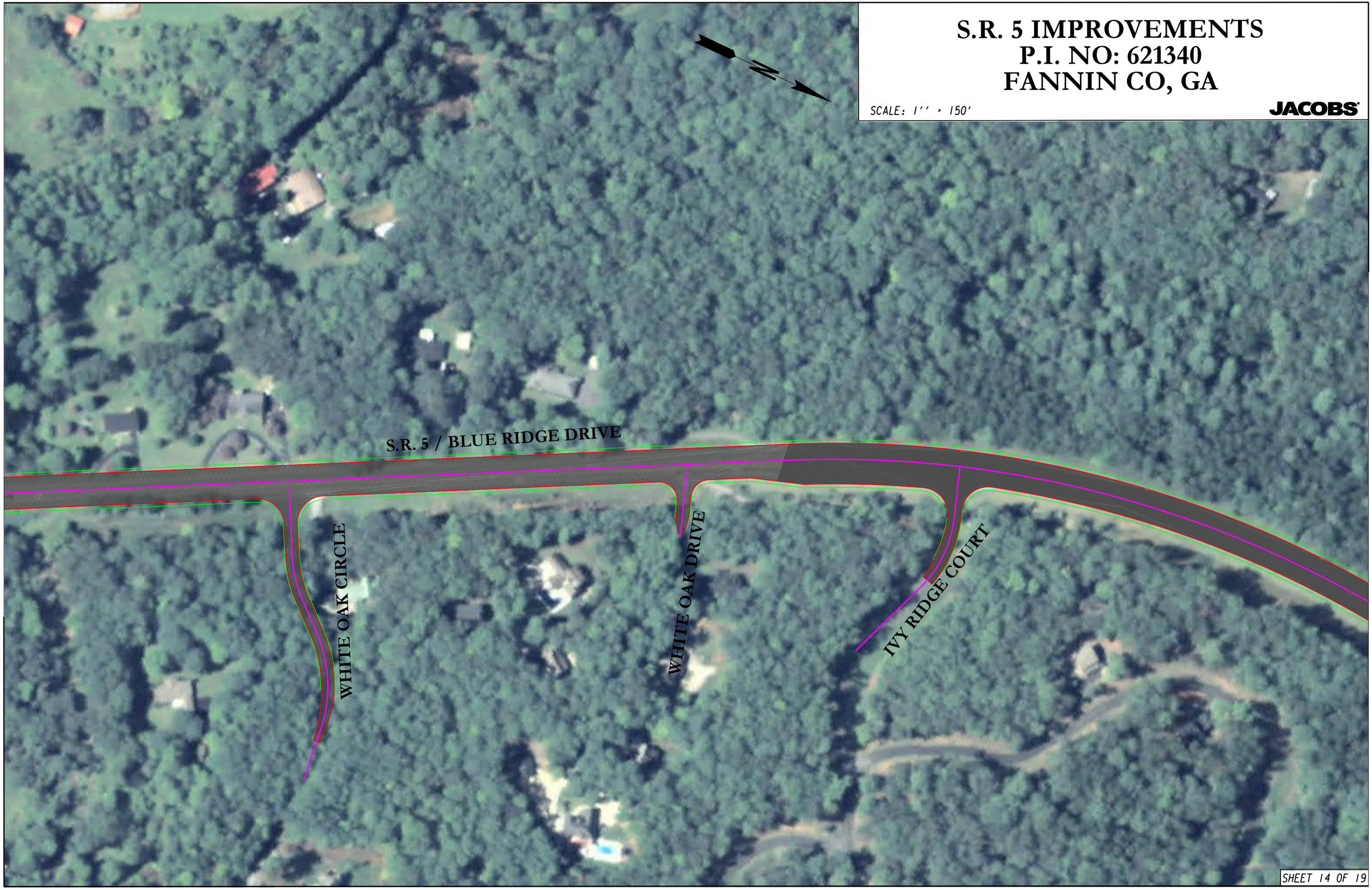

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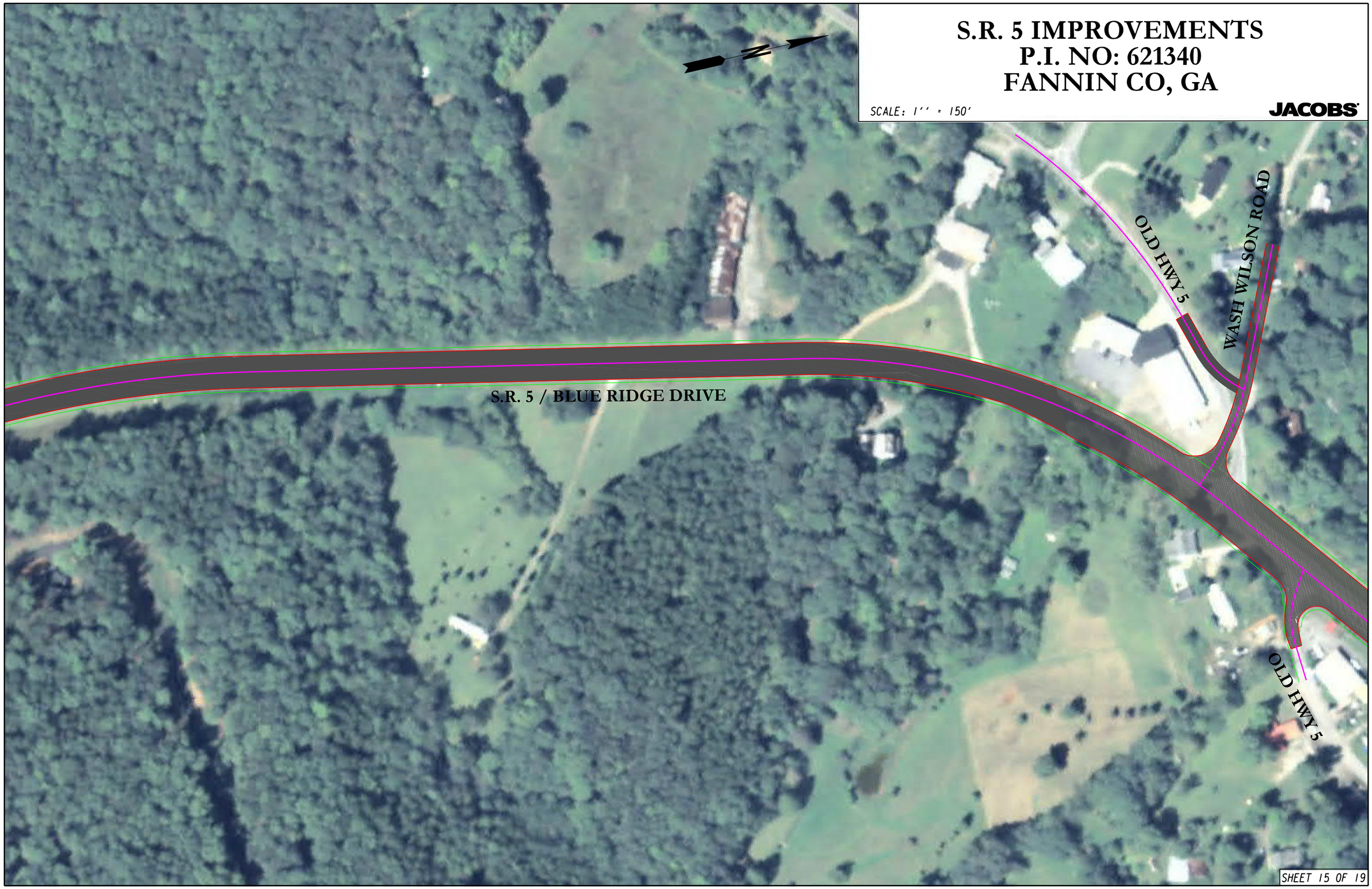

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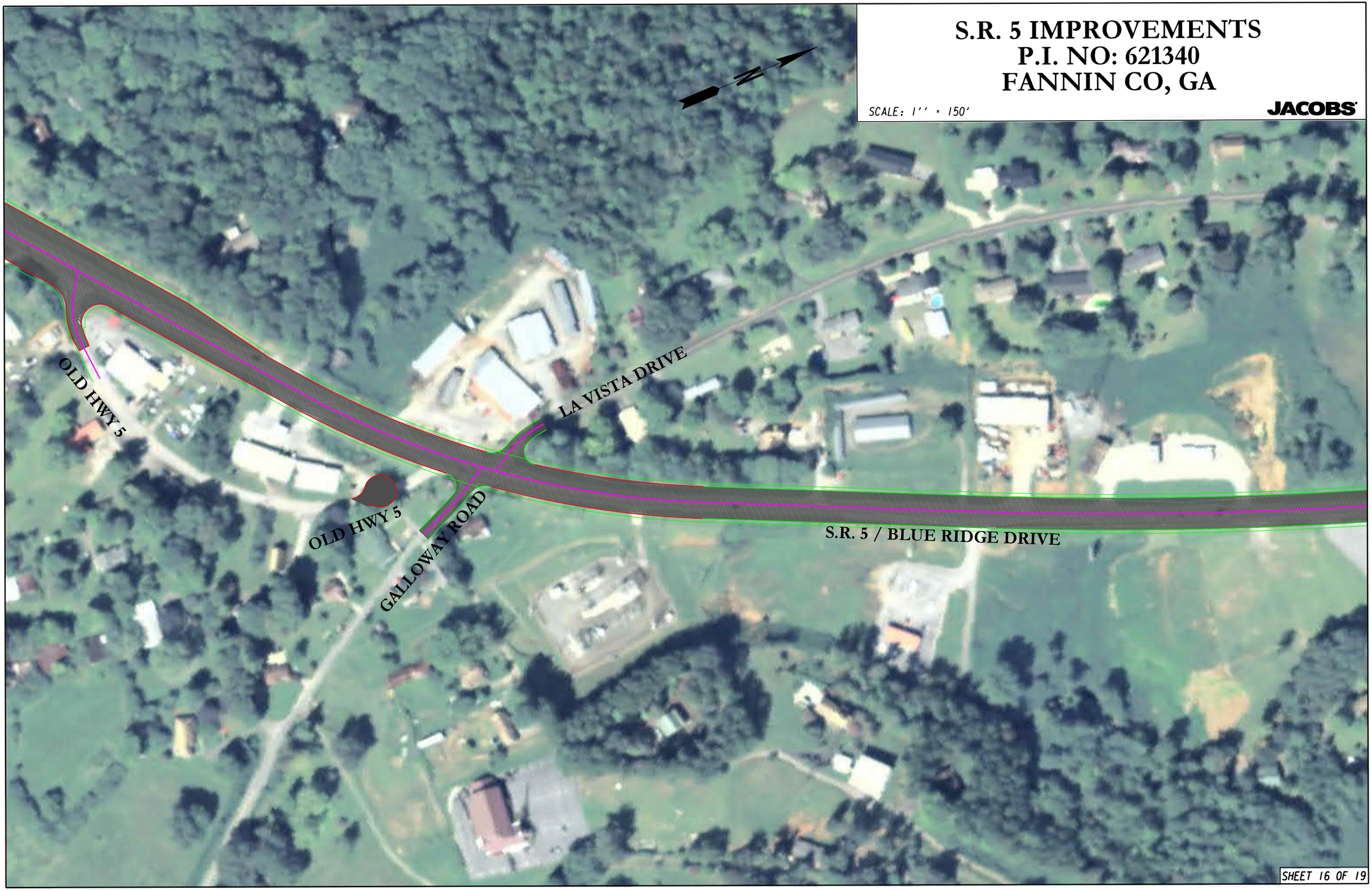

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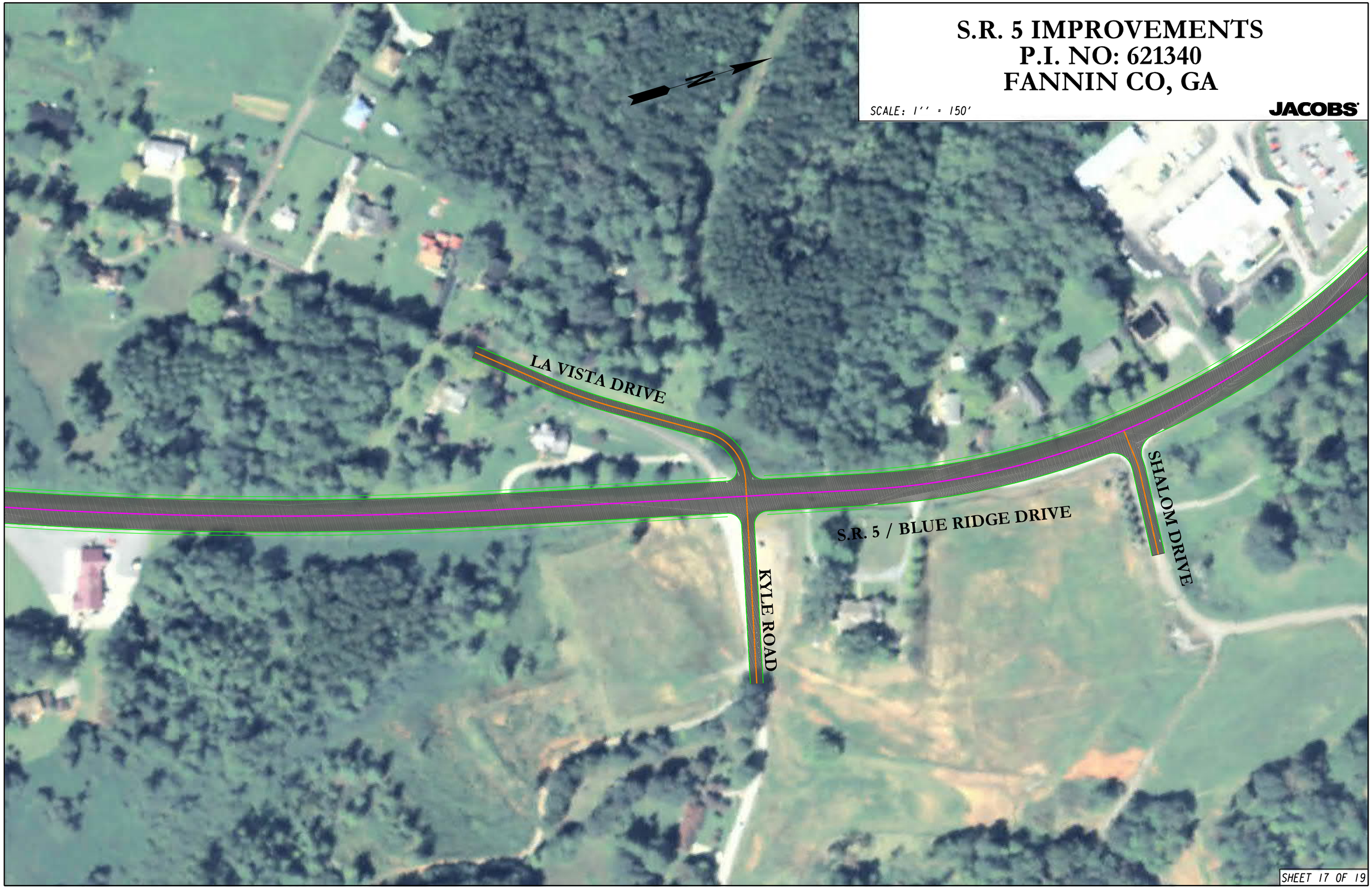

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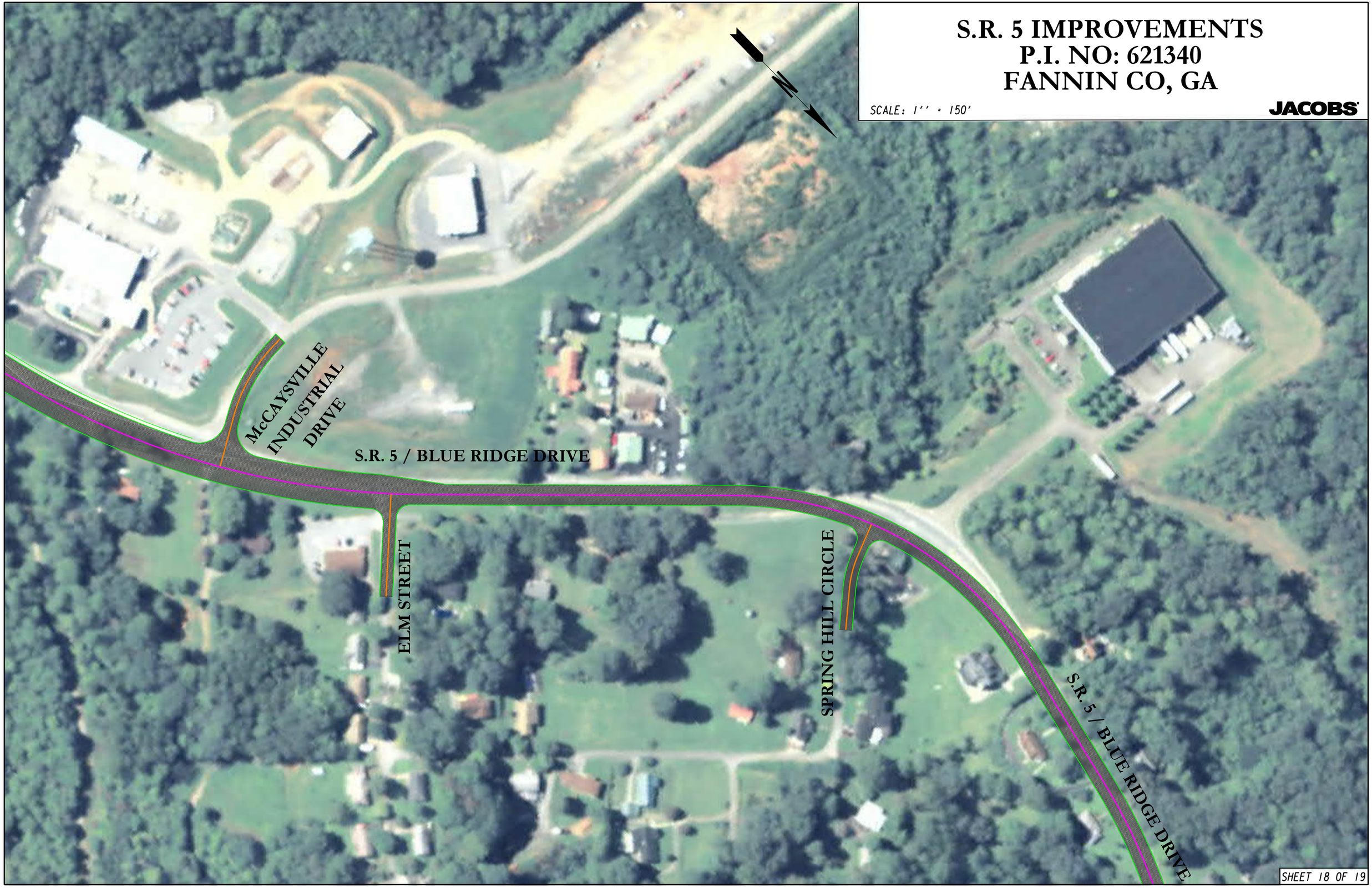

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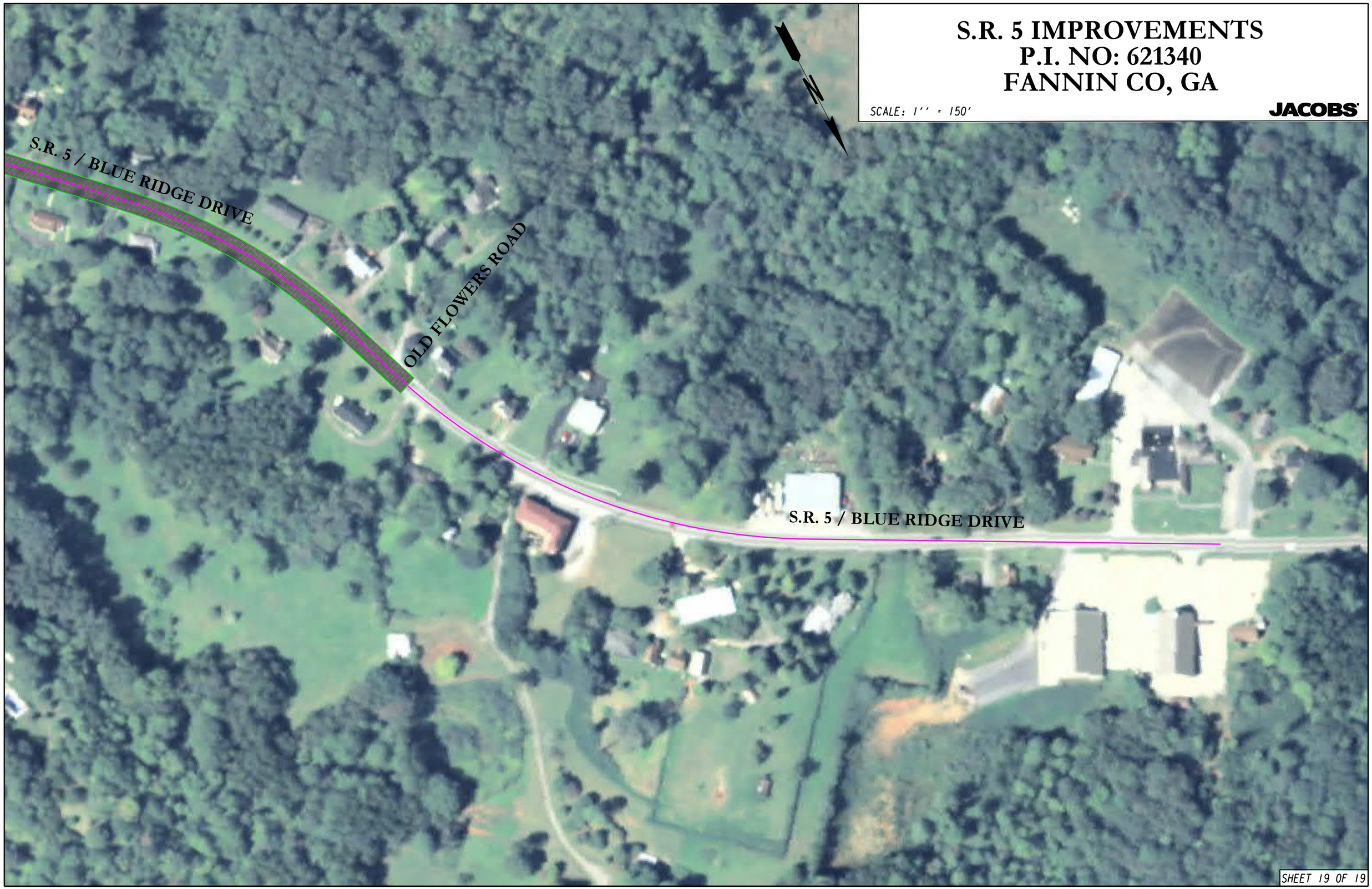
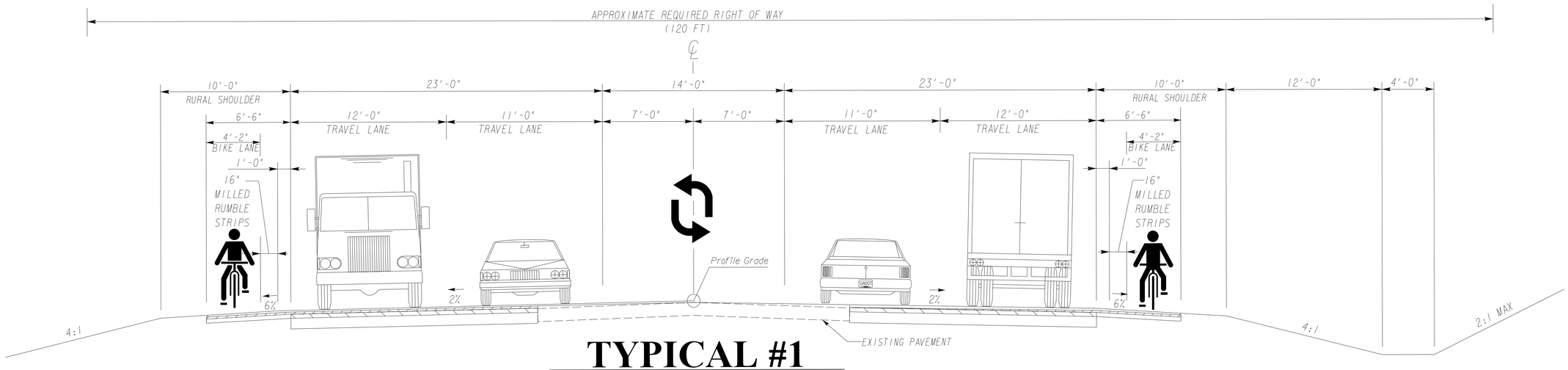
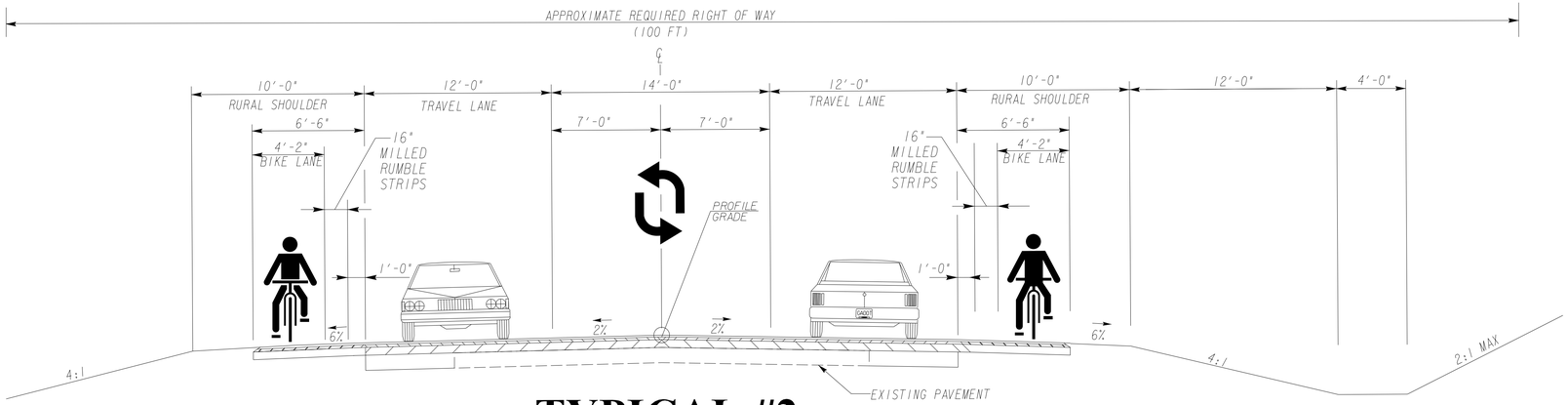


Attachment 2

Typical Sections



TYPICAL #1
PROPOSED RURAL 4-LANE 14' FLUSH MEDIAN



TYPICAL #2
PROPOSED RURAL 2-LANE 14' FLUSH MEDIAN

PROGRAM DELIVERY

JACOBS

SCALE: N.T.S.

REVISION DATES		

TYPICAL SECTIONS
SR 5 / BLUE RIDGE DRIVE

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		05-0001
CORRECTED:		DATE:		
VERIFIED:		DATE:		

Attachment 3

Detailed Cost Estimates

JOB ESTIMATE REPORT

JOB NUMBER : 621340 SPEC YEAR: 13
DESCRIPTION: SR 5 WIDENING

ITEMS FOR JOB 621340

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	150-1000		LS	TRAFFIC CONTROL - NH000-0057-01(010)	1.000	1462500.00	1462500.00
0010	150-5010		EA	TRAF CTRL,PORTABLE IMPACT ATTN	12.000	7974.92	95699.07
0015	153-1300		EA	FIELD ENGINEERS OFFICE TP 3	1.000	109087.00	109087.00
0020	201-1500		LS	CLEARING & GRUBBING - NH000-0057-01(010)	1.000	4875000.00	4875000.00
0025	205-0001		CY	UNCLASS EXCAV	742200.000	6.00	4453200.00
0030	205-0210		CY	EXCAVATION - ROCK	247400.000	30.00	7422000.00
0035	207-0203		CY	FOUND BKFILL MATL, TP II	1310.000	54.78	71768.13
0040	310-1101		TN	GR AGGR BASE CRS, INCL MATL	286800.000	21.36	6127358.68
0045	318-3000		TN	AGGR SURF CRS	3300.000	22.21	73318.87
0050	402-3121		TN	RECYL AC 25MM SP,GP1/2,BM&HL	125200.000	62.88	7873439.88
0055	402-3130		TN	RECYL AC 12.5MM SP,GP2,BM&HL	40150.000	70.08	2813875.81
0060	402-3190		TN	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	50380.000	68.77	3464946.97
0065	413-0750		GL	TACK COAT	95590.000	2.09	200674.00
0070	441-0016		SY	DRIVEWAY CONCRETE, 6 IN TK	4500.000	41.93	188698.55
0075	441-0018		SY	DRIVEWAY CONCRETE, 8 IN TK	7400.000	51.63	382088.12
0079	441-0104		SY	CONC SIDEWALK, 4 IN	50.000	60.25	3012.92
0080	441-0108		SY	CONC SIDEWALK, 8 IN	50.000	94.48	4724.35
0085	441-0740		SY	CONC MEDIAN, 4 IN	50.000	64.36	3218.45
0090	441-0748		SY	CONC MEDIAN, 6 IN	100.000	49.14	4914.92
0095	441-5002		LF	CONC HEADER CURB, 6, TP 2	900.000	24.13	21720.94
0100	441-6222		LF	CONC CURB & GUTTER/ 8X30TP2	900.000	23.18	20867.27
0105	446-1100		LF	PVMT REF FAB STRIPS, TP2,18 INCH WIDTH	500.000	9.93	4966.88
0110	456-2015		GLM	INDENT. RUMB. STRIPS - GRND-IN-PL (SKIP)	17.000	572.03	9724.64
0115	500-3101		CY	CLASS A CONCRETE	1300.000	671.78	873319.94
0120	500-3200		CY	CL B CONC	210.000	637.30	133833.16
0125	500-3800		CY	CL A CONC, INCL REINF STEEL	140.000	1053.56	147498.70
0130	500-9999		CY	CL B CONC,BASE OR PVMT WIDEN	100.000	238.92	23892.72
0135	511-1000		LB	BAR REINF STEEL	132100.000	0.76	100855.71
0140	550-1180		LF	STM DR PIPE 18,H 1-10	1750.000	43.66	76407.61
0148	550-1181		LF	STM DR PIPE 18,H 10-15	625.000	40.17	25110.71
0149	550-1182		LF	STM DR PIPE 18,H 15-20	125.000	44.57	5571.33
0150	550-1240		LF	STM DR PIPE 24,H 1-10	770.000	52.27	40249.83
0153	550-1241		LF	STM DR PIPE 24,H 10-15	275.000	53.12	14610.03
0154	550-1242		LF	STM DR PIPE 24,H 15-20	55.000	70.71	3889.05
0155	550-1300		LF	STM DR PIPE 30,H 1-10	350.000	72.62	25419.70
0160	550-1301		LF	STM DR PIPE 30,H 10-15	125.000	75.09	9387.38
0165	550-1302		LF	STM DR PIPE 30,H 15-20	25.000	80.00	2000.00
0170	550-1360		LF	STM DR PIPE 36,H 1-10	490.000	76.76	37615.01
0174	550-1361		LF	STM DR PIPE 36,H 10-15	175.000	80.00	14000.00
0175	550-1362		LF	STM DR PIPE 36,H 15-20	35.000	85.00	2975.00

JOB ESTIMATE REPORT

0179	550-1420	LF	STM DR PIPE 42,H 1-10	210.000	121.31	25476.45
0180	550-1421	LF	STM DR PIPE 42,H 10-15	75.000	125.00	9375.00
0185	550-1422	LF	STM DR PIPE 42,H 15-20	15.000	130.00	1950.00
0190	550-1480	LF	STM DR PIPE 48,H 1-10	120.000	124.14	14897.82
0195	550-1481	LF	STM DR PIPE 48,H 10-15	30.000	130.00	3900.00
0200	550-1720	LF	STM DR PIPE 72,H 1-10	195.000	200.00	39000.00
0205	550-1721	LF	STM DR PIPE 72,H 10-15	65.000	210.00	13650.00
0210	550-2180	LF	SIDE DR PIPE 18,H 1-10	5200.000	33.73	175413.52
0215	550-2240	LF	SIDE DR PIPE 24,H 1-10	2800.000	46.91	131368.61
0220	550-2300	LF	SIDE DR PIPE 30,H 1-10	1600.000	48.41	77467.63
0225	550-2360	LF	SIDE DR PIPE 36,H 1-10	1400.000	55.00	77000.00
0230	550-2420	LF	SIDE DR PIPE 42,H 1-10	600.000	60.00	36000.00
0235	550-2480	LF	SIDE DR PIPE 48,H 1-10	200.000	65.00	13000.00
0240	550-3318	EA	SAFETY END SECTION 18,STD,4:1	30.000	668.17	20045.40
0245	550-3324	EA	SAFETY END SECTION 24,STD,4:1	15.000	904.45	13566.82
0250	550-3330	EA	SAFETY END SECTION 30,STD,4:1	6.000	1000.00	6000.00
0255	550-3336	EA	SAFETY END SECTION 36,STD,4:1	6.000	1500.00	9000.00
0260	550-3342	EA	SAFETY END SECTION 42,STD,4:1	2.000	2000.00	4000.00
0265	550-3418	EA	SAFETY END SECTION 18,SD,4:1	90.000	495.94	44634.72
0270	550-3424	EA	SAFETY END SECTION 24,SD,4:1	60.000	650.00	39000.00
0275	550-3430	EA	SAFETY END SECTION 30,SD,4:1	30.000	750.00	22500.00
0280	550-3436	EA	SAFETY END SECTION 36,SD,4:1	15.000	850.00	12750.00
0285	550-3442	EA	SAFETY END SECTION 42,SD,4:1	15.000	1000.00	15000.00
0290	550-4118	EA	FLARED END SECT 18 IN, SIDE DR	90.000	505.25	45473.22
0295	550-4124	EA	FLARED END SECT 24 IN, SIDE DR	60.000	521.84	31310.82
0300	550-4130	EA	FLARED END SECT 30 IN, SIDE DR	30.000	575.00	17250.00
0305	550-4136	EA	FLARED END SECT 36 IN, SIDE DR	15.000	850.00	12750.00
0310	550-4142	EA	FLARED END SECT 42 IN, SIDE DR	15.000	1000.00	15000.00
0315	550-4218	EA	FLARED END SECT 18 IN, ST DR	30.000	618.18	18545.49
0320	550-4224	EA	FLARED END SECT 24 IN, ST DR	15.000	731.71	10975.66
0325	550-4230	EA	FLARED END SECT 30 IN, ST DR	6.000	898.28	5389.74
0330	550-4236	EA	FLARED END SECT 36 IN, ST DR	6.000	1324.83	7949.00
0335	550-4242	EA	FLARED END SECT 42 IN, ST DR	2.000	1725.00	3450.00
0340	550-4418	EA	FLARED END SECT 18 IN, SLP DR	8.000	345.00	2760.00
0345	550-4424	EA	FLARED END SECT 24 IN, SLP DR	4.000	500.00	2000.00
0350	576-1018	LF	SLOPE DRAIN PIPE, 18 IN	400.000	43.08	17235.92
0355	576-1024	LF	SLOPE DRAIN PIPE, 24 IN	200.000	50.00	10000.00
0360	620-0100	LF	TEMP BARRIER, METHOD NO. 1	3450.000	30.42	104956.94
0365	632-0003	EA	CHANGEABLE MESS SIGN,PORT,TP 3	12.000	9978.35	119740.20
0370	634-1200	EA	RIGHT OF WAY MARKERS	210.000	134.75	28298.65
0375	641-1100	LF	GUARDRAIL, TP T	100.000	72.35	7235.03
0380	641-1200	LF	GUARDRAIL, TP W	14600.000	17.89	261298.97
0385	641-5001	EA	GUARDRAIL ANCHORAGE, TP 1	45.000	857.28	38577.83
0390	641-5012	EA	GUARDRAIL ANCHORAGE, TP 12	30.000	2127.78	63833.57
0395	643-1152	LF	CH LK FEN,ZC COAT, 6', 9 GA	895.000	32.09	28727.28
0400	643-8010	EA	GATE, CHAIN LINK ZC COAT - GATES	5.000	797.74	3988.70
0405	643-8050	EA	GATE - SPECIAL DESIGN	5.000	1000.00	5000.00
0410	643-8210	LF	WOOD FENCE -	1560.000	30.00	46800.00
0415	643-8300	LF	ORNAMENTAL FENCE	990.000	50.00	49500.00
0420	668-2100	EA	DROP INLET, GP 1	7.000	2138.94	14972.62
0425	668-2110	LF	DROP INLET, GP 1, ADDL DEPTH	10.000	258.54	2585.48
0430	668-2200	EA	DROP INLET, GP 2	2.000	2000.00	4000.00
0435	668-2210	LF	DROP INLET, GP 2, ADDL DEPTH	5.000	290.00	1450.00
0440	668-4300	EA	STORM SEW MANHOLE, TP 1	7.000	2191.78	15342.50

JOB ESTIMATE REPORT

0445	668-4311	LF	ST SEW MANHOLE,TP 1,A DEP,CL 1	10.000	329.30	3293.03
0450	668-4400	EA	STORM SEW MANHOLE, TP 2	2.000	3230.10	6460.20
0455	668-4411	LF	ST SEW MANHOLE,TP 2,A DEP,CL 1	5.000	215.00	1075.00
0460	668-5000	EA	JUNCTION BOX	2.000	2218.80	4437.61
0465	500-3110	LF	CLASS A CONCRETE, TYPE P1, RETAINING WAL	5000.000	500.00	2500000.00
0470	500-3115	LF	CLASS A CONCRETE, TYPE P2, RETAINING WAL	1000.000	650.00	650000.00
0475	500-3120	LF	CLASS A CONCRETE, TYPE P3, RETAINING WAL	500.000	750.00	375000.00
0480	441-0004	SY	CONC SLOPE PAV, 4 IN	2000.000	49.31	98639.94
0485	603-2181	SY	STN DUMPED RIP RAP, TP 3, 18	1750.000	39.29	68761.28
0490	603-2182	SY	STN DUMPED RIP RAP, TP 3, 24	5250.000	45.07	236618.60
0495	603-7000	SY	PLASTIC FILTER FABRIC	7000.000	3.87	27143.55
0500	700-6910	AC	PERMANENT GRASSING	96.000	1418.05	136133.19
0505	700-7000	TN	AGRICULTURAL LIME	430.000	75.08	32285.32
0510	700-8000	TN	FERTILIZER MIXED GRADE	70.000	574.42	40209.74
0515	700-8100	LB	FERTILIZER NITROGEN CONTENT	4800.000	2.30	11064.24
0520	711-0100	SY	TURF REINFORCING MATTING, TP 1	13300.000	4.50	59850.00
0525	711-0200	SY	TURF REINFORCING MATTING, TP 2	3300.000	4.75	15675.00
0530	711-0300	SY	TURF REINFORCING MATTING, TP 3	300.000	5.00	1500.00
0535	713-3001	SY	WOOD FIBER BLANKET,TP I,SLOPES	35000.000	1.01	35612.50
0540	716-2000	SY	EROSION CONTROL MATS, SLOPES	105000.000	0.80	84175.35
0545	163-0232	AC	TEMPORARY GRASSING	48.000	445.86	21401.72
0550	163-0240	TN	MULCH	9600.000	113.72	1091767.49
0555	163-0300	EA	CONSTRUCTION EXIT	30.000	1510.48	45314.47
0560	163-0502	EA	CONSTR AND REMOVE SILT CONTROL GATE,TP 2	30.000	546.32	16389.62
0565	163-0503	EA	CONSTR AND REMOVE SILT CONTROL GATE,TP 3	300.000	383.93	115179.98
0570	163-0527	EA	CNST/REM RIP RAP CKDM,STN P RIPRAP/SN BG	900.000	281.21	253095.19
0575	163-0529	LF	CNST/REM TEMP SED BAR OR BLD STRW CK DM	1400.000	4.58	6412.97
0580	163-0531	EA	CONSTR & REM SEDIMENT BASIN,TP 1,STA NO- ALL	10.000	13865.67	138656.75
0585	163-0541	EA	CONSTR & REM ROCK FILTER DAMS	10.000	662.80	6628.05
0590	163-0550	EA	CONS & REM INLET SEDIMENT TRAP	20.000	157.94	3158.93
0595	165-0030	LF	MAINT OF TEMP SILT FENCE, TP C	140000.000	0.40	56848.40
0600	165-0041	LF	MAINT OF CHECK DAMS - ALL TYPES	9000.000	2.68	24189.66
0605	165-0060	EA	MAINT OF TEMP SEDIMENT BASIN,STA NO -	10.000	3325.28	33252.88
0610	165-0071	LF	MAINT OF SEDIMENT BARRIER - BALED STRAW	700.000	2.74	1919.27
0615	165-0086	EA	MAINT OF SILT CONTROL GATE, TP 2	30.000	81.27	2438.15
0620	165-0087	EA	MAINT OF SILT CONTROL GATE, TP 3	300.000	84.80	25440.14
0625	165-0101	EA	MAINT OF CONST EXIT	15.000	620.59	9308.90
0630	165-0105	EA	MAINT OF INLET SEDIMENT TRAP	20.000	69.98	1399.72
0635	165-0110	EA	MAINT OF ROCK FILTER DAM	10.000	176.36	1763.62
0640	167-1000	EA	WATER QUALITY MONITORING AND SAMPLING	8.000	344.53	2756.26
0645	167-1500	MO	WATER QUALITY INSPECTIONS	36.000	501.05	18037.90
0650	170-1000	LF	FLOAT SILT RETENTION BARRIER	500.000	19.29	9648.16
0655	171-0030	LF	TEMPORARY SILT FENCE, TYPE C	280000.000	2.78	781037.60

JOB ESTIMATE REPORT

0660	643-8200	LF	BARRIER FENCE (ORANGE), 4 FT	20000.000	1.40	28187.00
0665	647-1000	LS	TRAF SIGNAL INSTALLATION NO - PROGRESS CIR AND SR 5	1.000	125000.00	125000.00
0670	636-1020	SF	HWY SGN,TP1MAT,REFL SH TP3	1200.000	13.35	16029.50
0675	636-1033	SF	HWY SIGNS, TP1MAT,REFL SH TP 9	1200.000	15.58	18706.45
0680	636-1036	SF	HWY SGN,TP1MAT,REFL SH TP 11	800.000	21.00	16800.00
0685	636-2070	LF	GALV STEEL POSTS, TP 7	4500.000	6.69	30129.75
0690	636-2080	LF	GALV STEEL POSTS, TP 8	400.000	11.92	4771.08
0695	636-3010	EA	GROUND-MOUNTED BREAKAWAY SIGN SUPPORT	35.000	494.51	17308.05
0700	639-2002	LF	STEEL WIRE STRAND CABLE, 3/8	550.000	6.02	3315.10
0705	639-4004	EA	STRAIN POLE, TP IV	4.000	10197.46	40789.85
0710	647-5230	EA	SIGNAL ASS, FLASHING SCHOOL,CO	2.000	7000.00	14000.00
0715	653-0120	EA	THERM PVMT MARK, ARROW, TP 2	300.000	72.81	21844.91
0720	653-1501	LF	THERMO SOLID TRAF ST 5 IN, WHI	140000.000	0.42	58979.20
0725	653-1502	LF	THERMO SOLID TRAF ST, 5 IN YEL	105000.000	0.43	45641.40
0730	653-1704	LF	THERM SOLID TRAF STRIPE,24,WH	1300.000	6.77	8802.46
0735	653-1804	LF	THERM SOLID TRAF STRIPE, 8,WH	550.000	2.66	1467.31
0740	653-3501	GLF	THERMO SKIP TRAF ST, 5 IN, WHI	140000.000	0.27	38242.40
0745	653-3502	GLF	THERMO SKIP TRAF ST, 5 IN, YEL	67000.000	0.17	11414.12
0750	653-6004	SY	THERM TRAF STRIPING, WHITE	500.000	4.58	2292.56
0755	653-6006	SY	THERM TRAF STRIPING, YELLOW	500.000	4.67	2335.25
0760	654-1001	EA	RAISED PVMT MARKERS TP 1	2000.000	3.91	7821.74
0765	654-1002	EA	RAISED PVMT MARKERS TP 2	800.000	3.97	3177.02
0770	654-1003	EA	RAISED PVMT MARKERS TP 3	1900.000	4.20	7998.28
0775	654-1010	EA	RAISED PVMT MARKERS TP 10	5.000	46.58	232.93

ITEM TOTAL	50604101.64
INFLATED ITEM TOTAL	50604101.66

ESTIMATED COST:	50604101.66
CONTINGENCY PERCENT (15.0):	~~7590615.25~~
ESTIMATED TOTAL:	~~58194716.91~~

TOTALS FOR JOB 621340	50604101.66
Engineering & Inspection (5%)	2530205.08
Contingency (10%)	5313430.67
Liquid AC	2479031.01
Estimated Total	60926768.43

PROJ. NO.	NH000-0057-01_(010)	CALL NO.
P.I. NO.	621340-	
DATE	3/28/2017	

INDEX (TYPE)	**DATE**	**INDEX**
REG. UNLEADED	Mar-17	$ 2.215
DIESEL		$ 2.512
LIQUID AC		$ 369.00

Link to Fuel and AC Index:
http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx

LIQUID AC ADJUSTMENTS

PA=[((APM-APL)/APL)]xTMTxAPL

Asphalt

Price Adjustment (PA)			**2388131.1**	**$ 2,388,131.10**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$ 590.40	
Monthly Asphalt Cement Price month project let (APL)			$ 369.00	
Total Monthly Tonnage of asphalt cement (TMT)			10786.5	

ASPHALT	**Tons**	**%AC**	**AC ton**
Leveling	0	5.0%	0
12.5 OGFC	0	5.0%	0
12.5 mm	40150	5.0%	2007.5
9.5 mm SP	0	5.0%	0
25 mm SP	125200	5.0%	6260
19 mm SP	50380	5.0%	2519
	215730		**10786.5**

BITUMINOUS TACK COAT

Price Adjustment (PA)			**$ 90,899.91**	**$ 90,899.91**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$ 590.40	
Monthly Asphalt Cement Price month project let (APL)			$ 369.00	
Total Monthly Tonnage of asphalt cement (TMT)			410.5686971	

Bitum Tack Gals	gals/ton	tons
95590	232.8234	410.568697

PROJ. NO.	NH000-0057-01_(010)		CALL NO.
P.I. NO.	621340-		
DATE	3/28/2017		

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)				**0**	**$ -**
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	$	590.40	
Monthly Asphalt Cement Price month project let (APL)			$	369.00	
Total Monthly Tonnage of asphalt cement (TMT)				0	

Bitum Tack	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.		0.20	0	232.8234	0
Double Surf.Trmt.		0.44	0	232.8234	0
Triple Surf. Trmt		0.71	0	232.8234	0
					0

TOTAL LIQUID AC ADJUSTMENT	**$**	**2,479,031.01**

Attachment 4

Crash Summaries

Length (mi) 14.38

Crash Data	AADT*	Annual Crashes	Crash Rate (per HMVM)		Annual Injuries	Injury Rate (per HMVM)		Annual Fatalities	Fatality Rate (per HMVM)	
			Road Segment	Statewide Average**		Road Segment	Statewide Average**		Road Segment	Statewide Average**
2013	10510	91	165	166	28	51	33	0	0	0.42
2014	7310	94	245	172	35	91	33	0	0	0.28
2015	7680	117	290	172	35	87	33	0	0	0.28
Average	8500	101	233	170	33	76	33	0	0	0.33

* AADT is a weighted average of counts from four stations versus length of each station segment

** Statewide average is listed for type: Principle Arterial, Non-NHS, Rural

*** 2015 averages have not been published by GDOT, the latest data (2014) is shown in its place

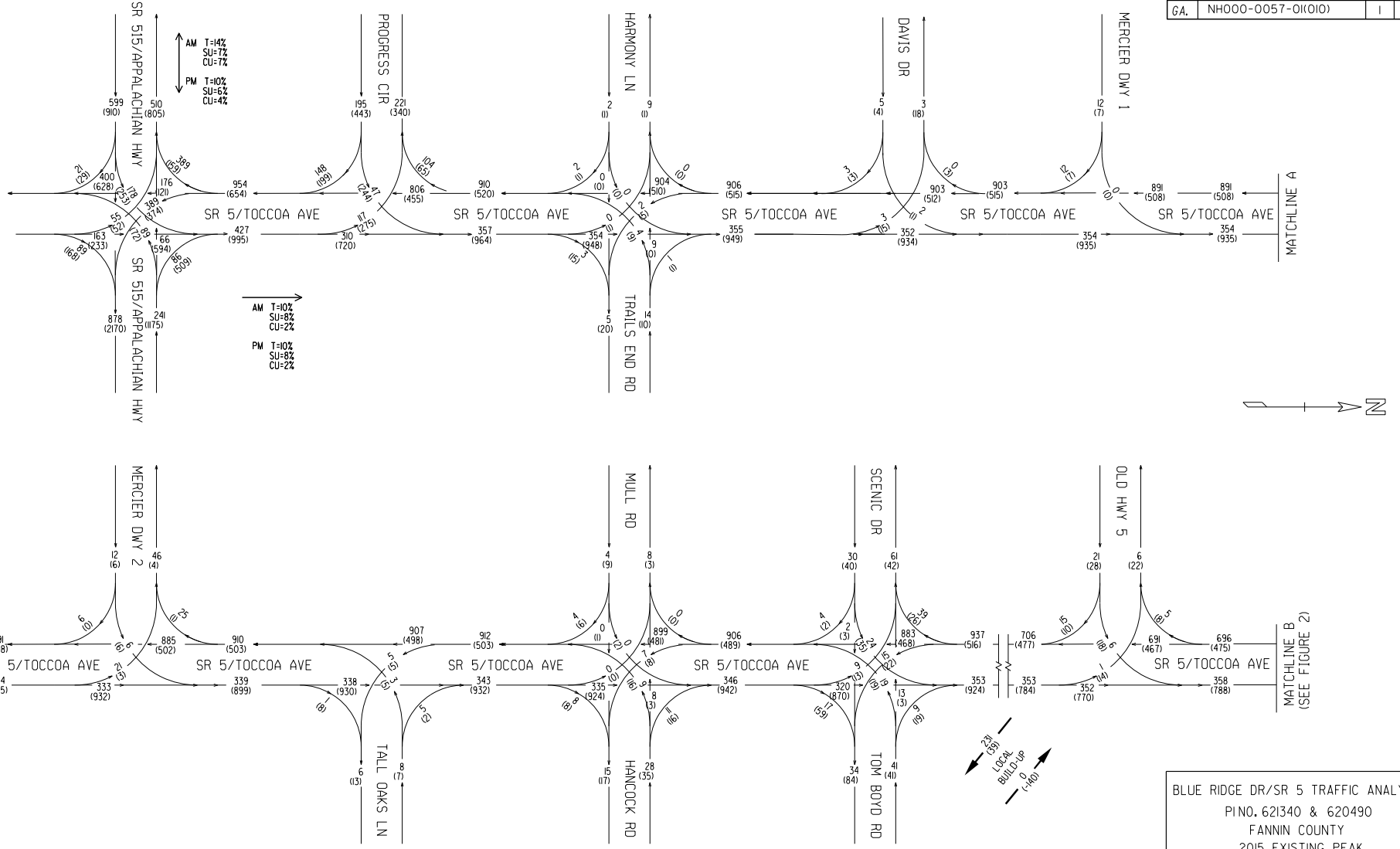
Manner of Coll	2013	2014	2015	Grand Total
Angle	17	18	20	55
Head On	3	3	3	9
Not A Collision	22	23	39	84
Rear End	43	46	51	140
Sideswipe-Opp	1	3	1	5
Sideswipe-Sam	3	1	2	6
Other	2	0	1	3
Grand Total	**91**	**94**	**117**	**302**

Row Labels	2013	2014	2015	Grand Total
Fatality	0	0	0	0
Non-Injury	63	59	82	204
Injury	28	35	33	96
Pedestrian	0	0	2	2
Grand Total	**91**	**94**	**117**	**302**

Attachment 5

Traffic Diagrams

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	1	30



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2015 EXISTING PEAK HOUR VOLUMES

JACOBS™

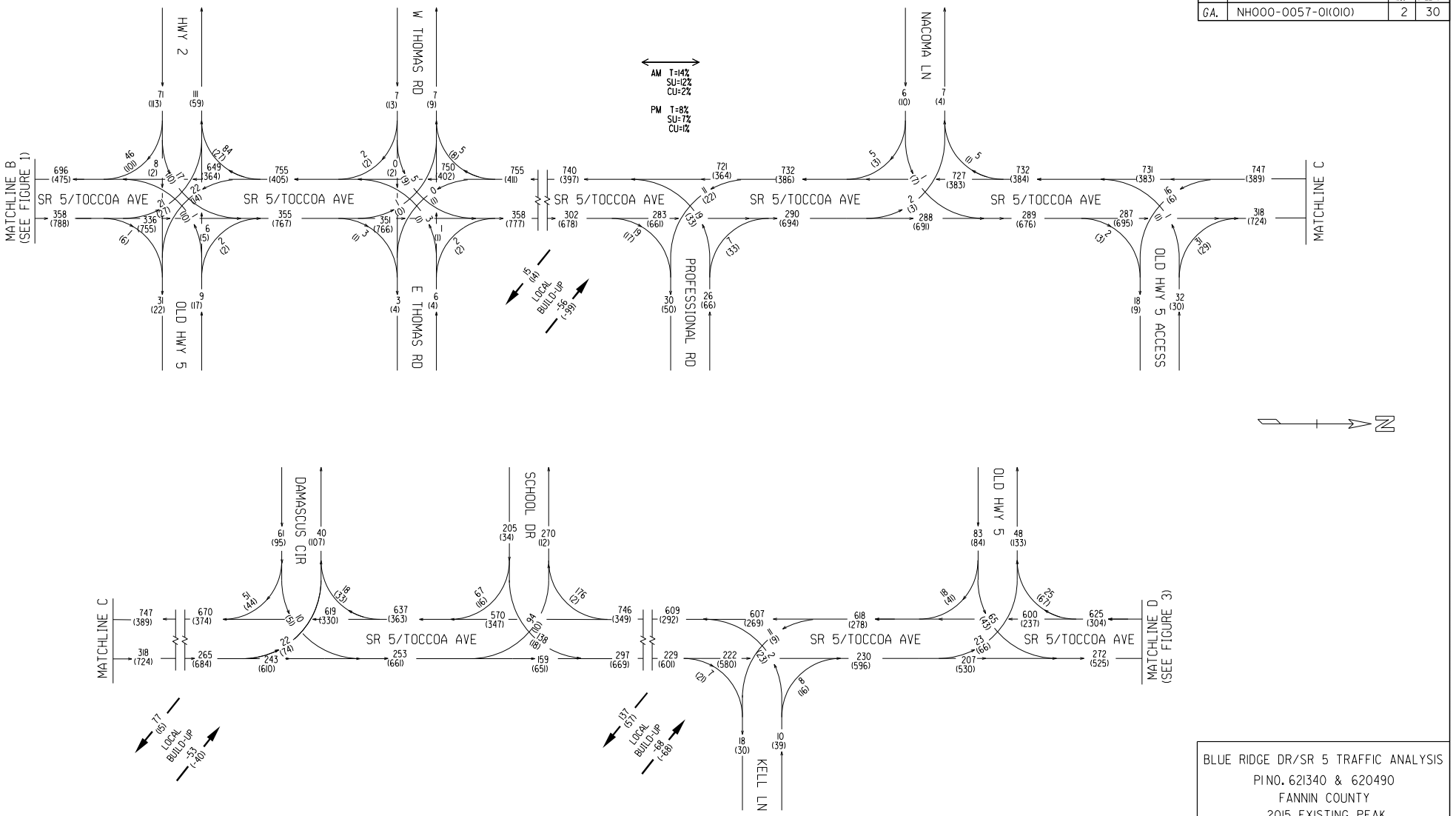
FIGURE 1

SCALE: N.T.S.

AUGUST 2015

$DATE$ 10:15:04 AM Kay.Sharpe $FILE$

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	2	30



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2015 EXISTING PEAK HOUR VOLUMES

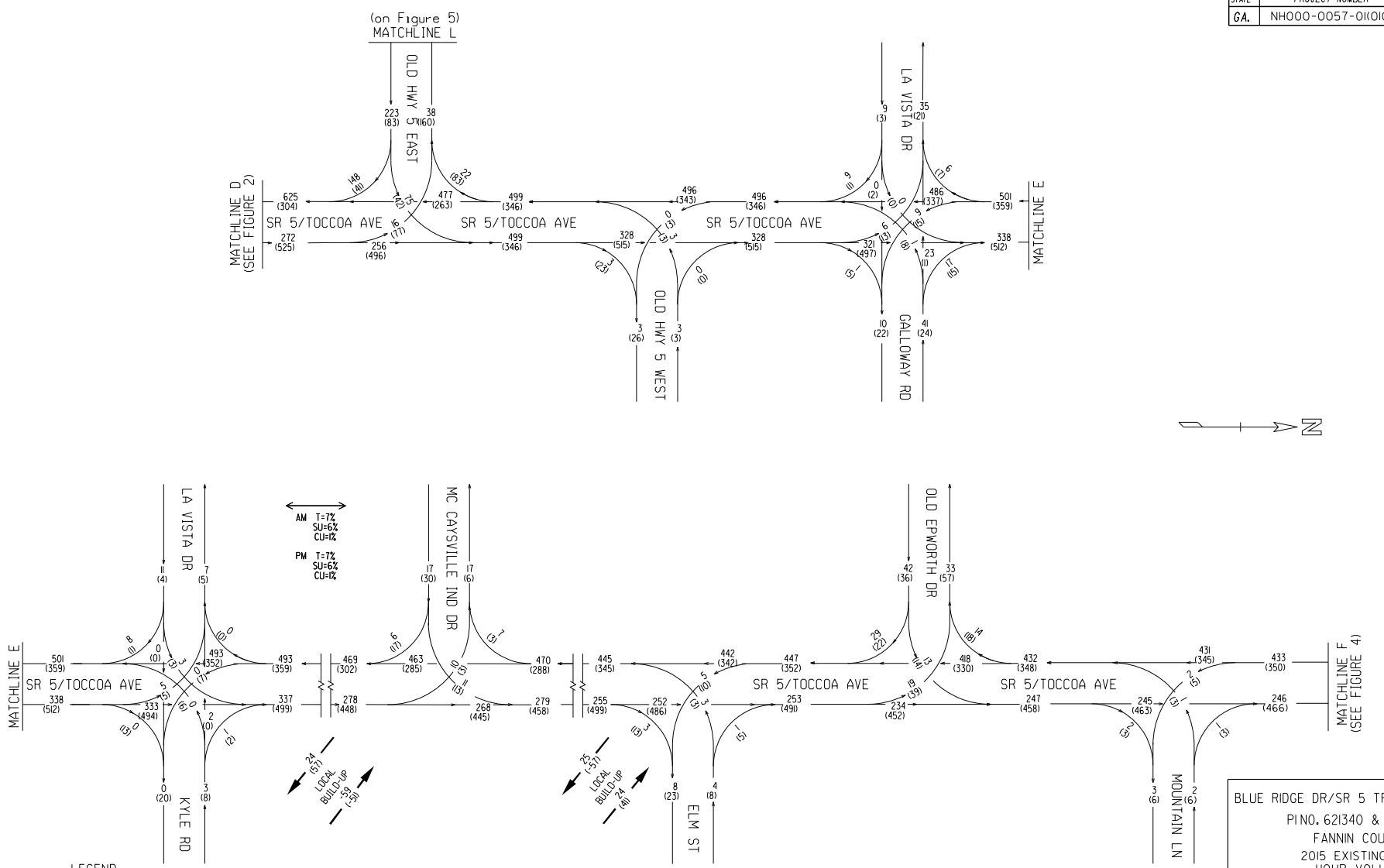
JACOBS™

FIGURE 2

SCALE: N.T.S. AUGUST 2015

$DATE$ 10:15:05 AM Kay.Sharpe $FILE$

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	3	30



BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2015 EXISTING PEAK HOUR VOLUMES

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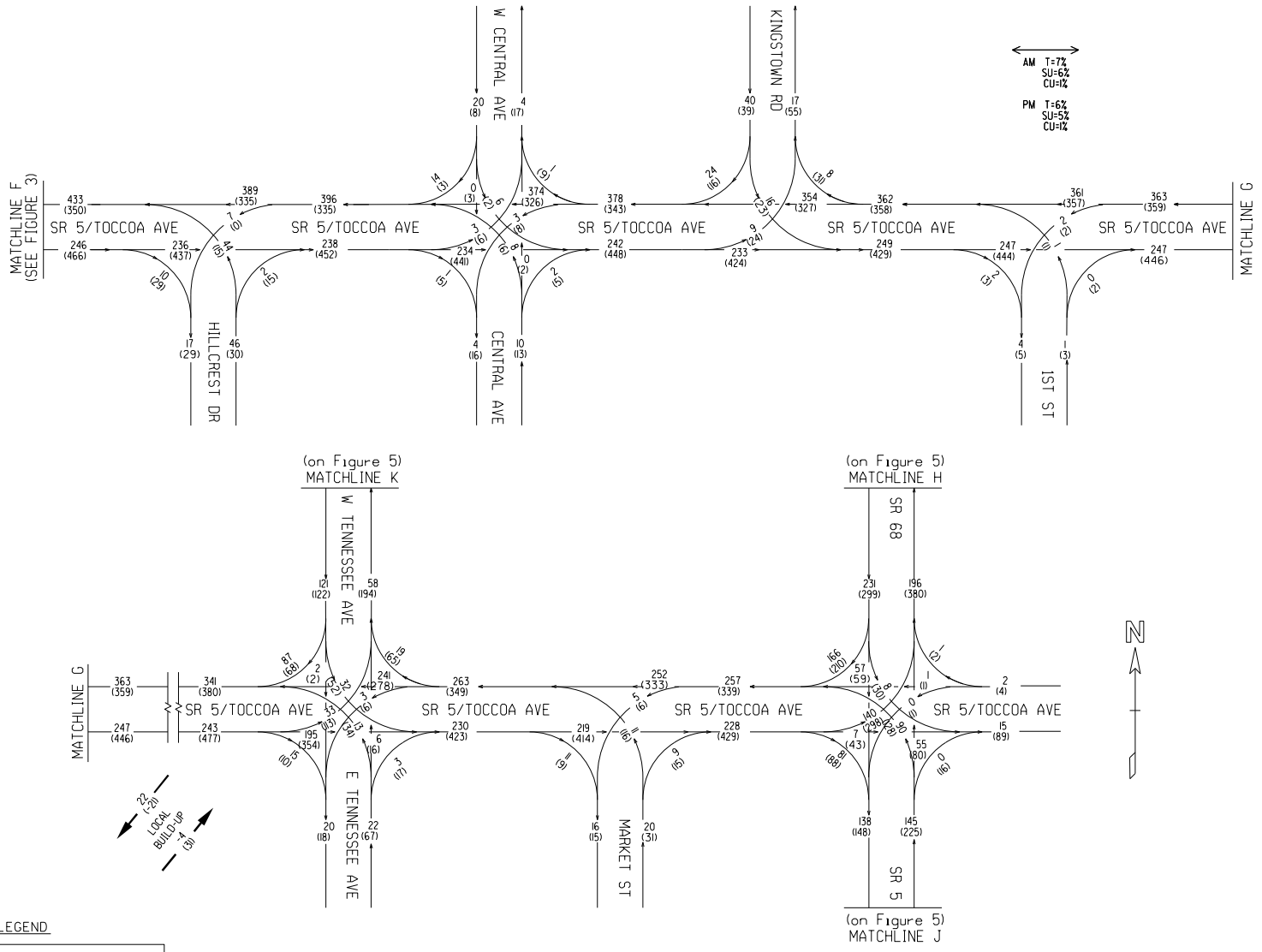
FIGURE 3

SCALE: N.T.S.

AUGUST 2015

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	4	30



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2015 EXISTING PEAK HOUR VOLUMES

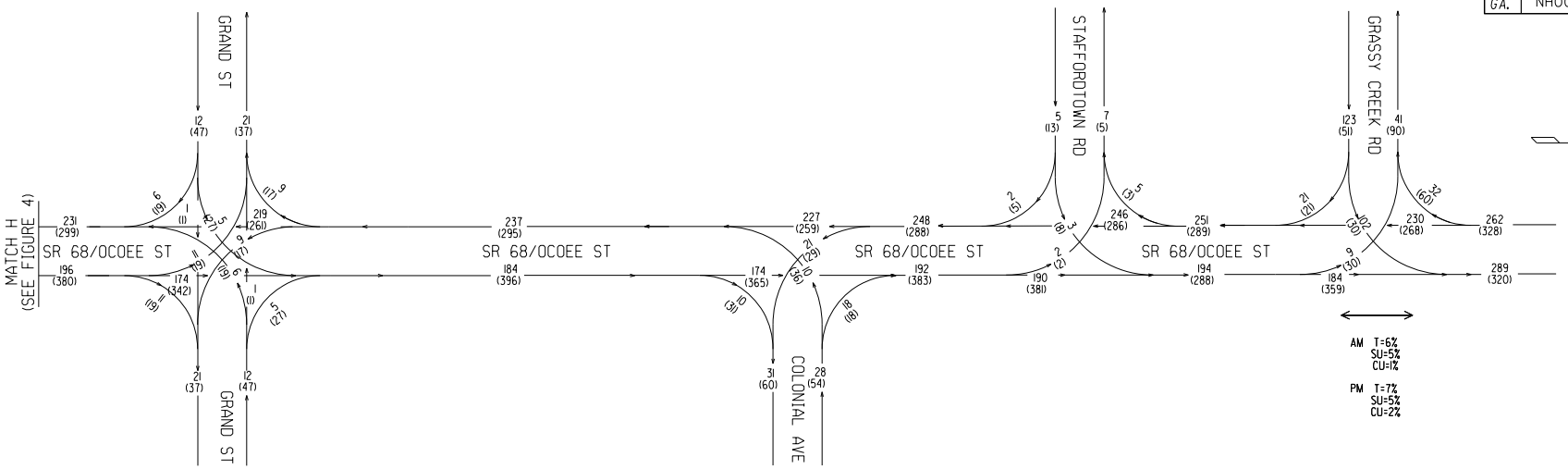
JACOBS™

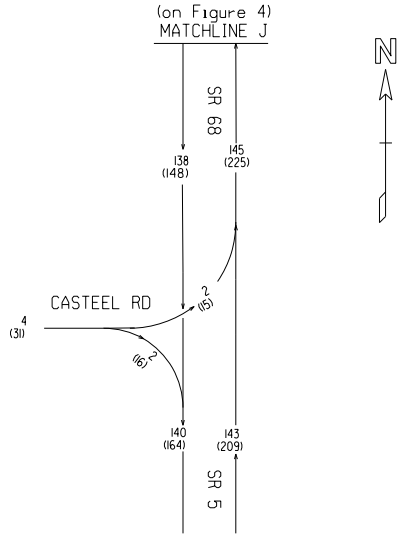
FIGURE 4

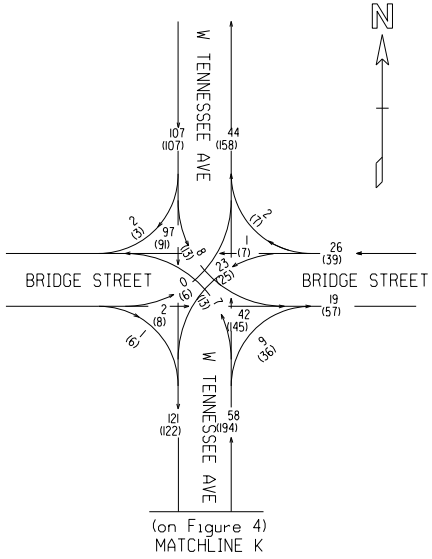
SCALE: N.T.S.

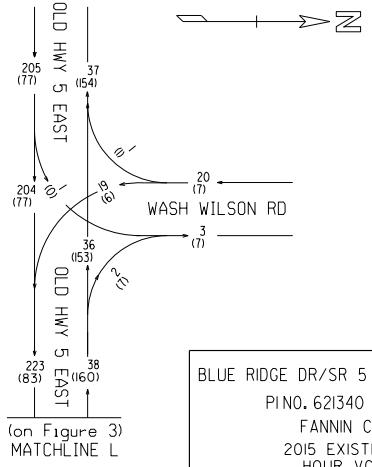
AUGUST 2015

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	5	30









LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2015 EXISTING PEAK HOUR VOLUMES

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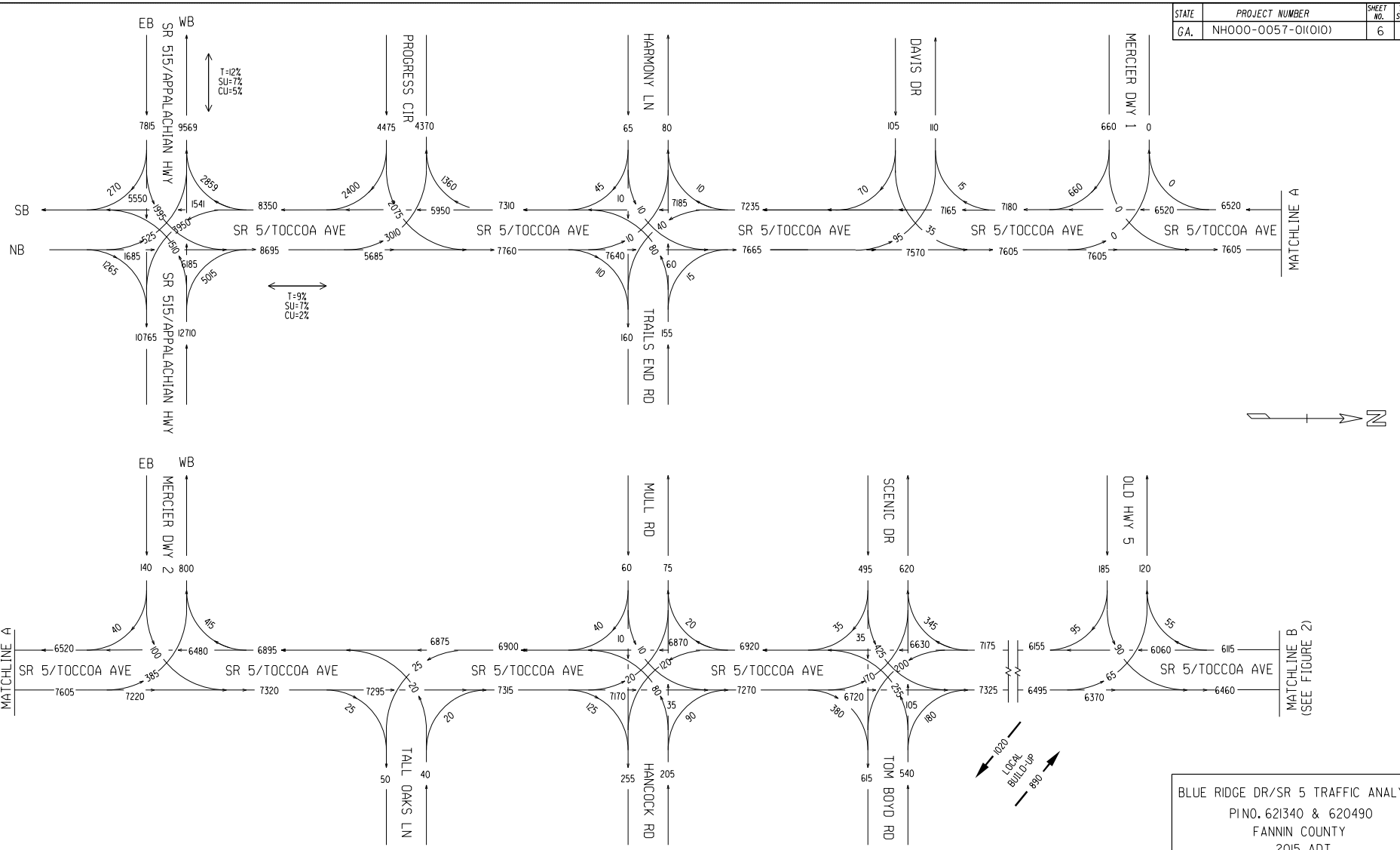
FIGURE 5

SCALE: N.T.S.

AUGUST 2015

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	6	30



BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2015 ADT
VOLUMES

JACOBS™

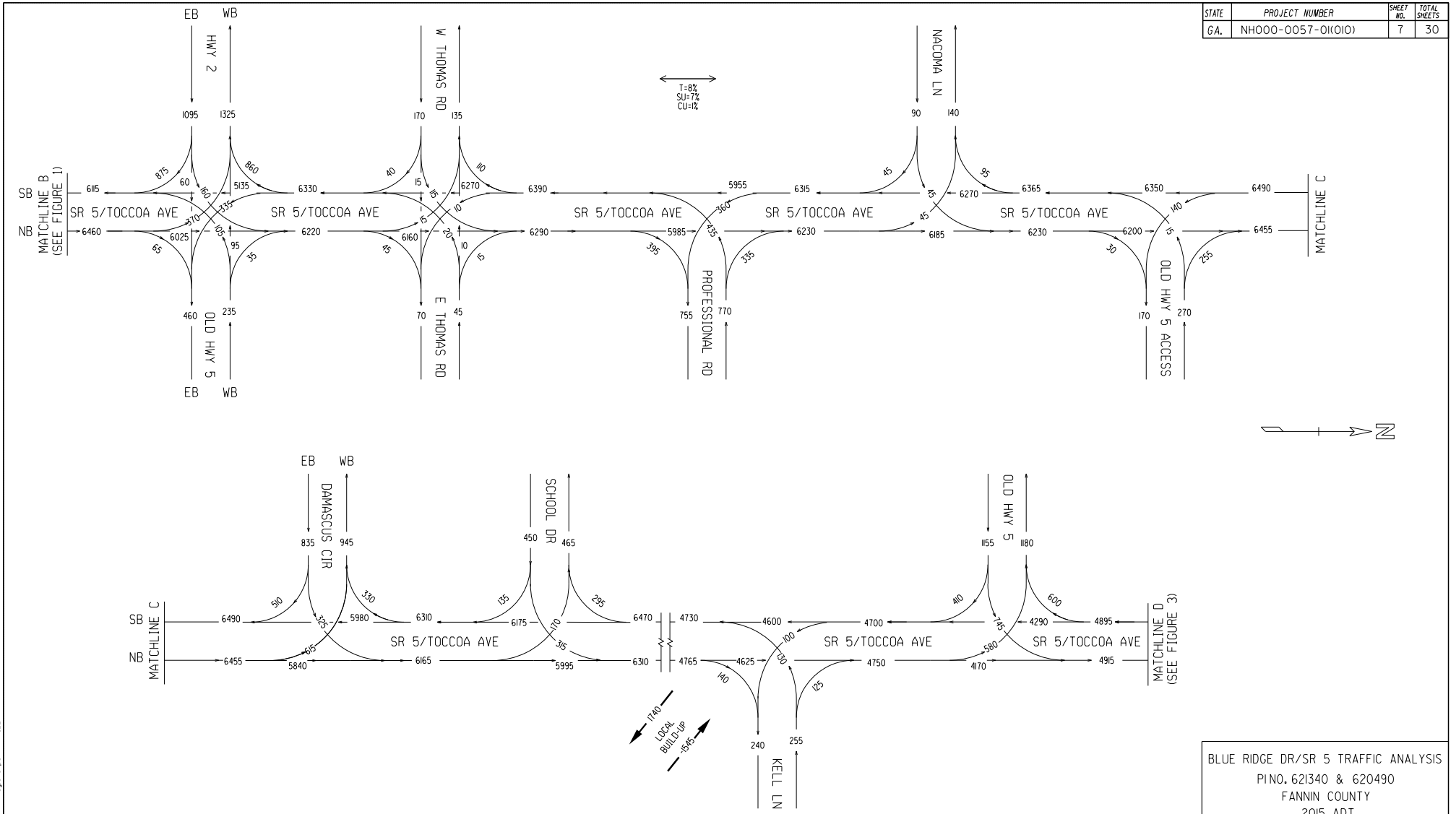
FIGURE 6

SCALE: N.T.S.

AUGUST 2015

$DATE$ 10:15:09 AM Kay.Sharpe $FILE$

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	7	30



BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2015 ADT
VOLUMES

JACOBS™

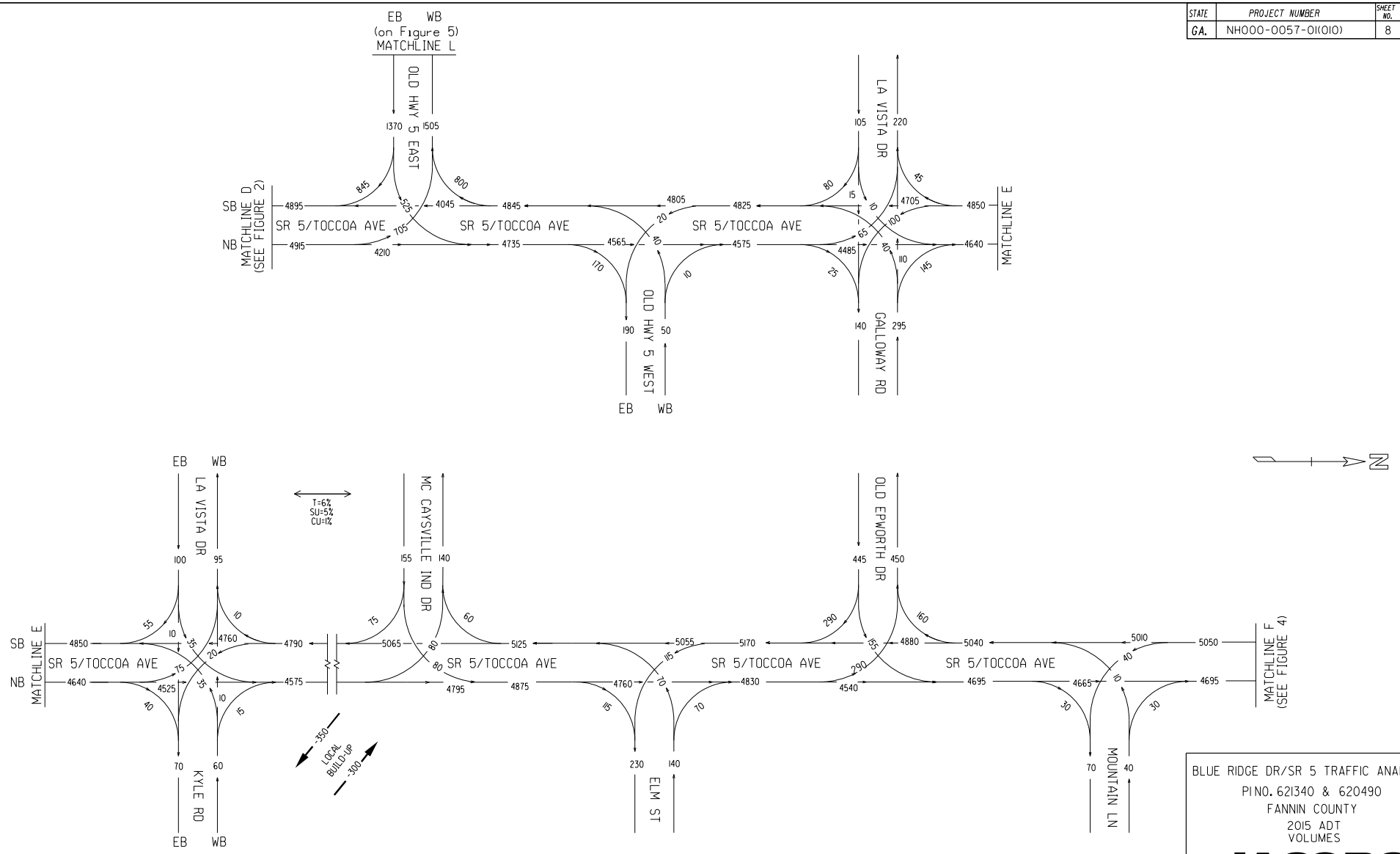
FIGURE 7

SCALE: N.T.S.

AUGUST 2015

$DATE$ 10:15:09 AM Kay.Sharpe $FILE$

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	8	30



BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2015 ADT
VOLUMES

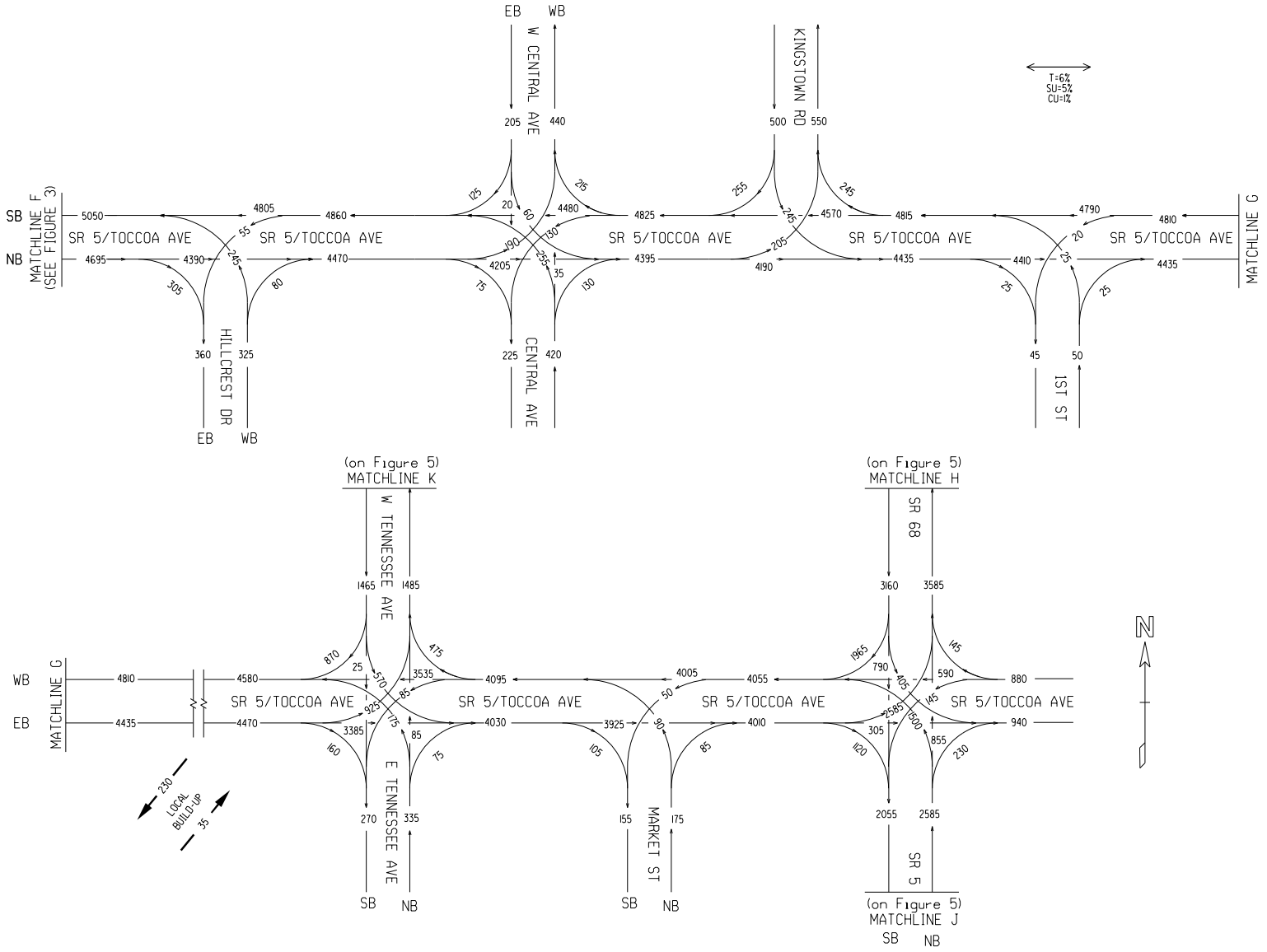
JACOBS™

FIGURE 8

SCALE: N.T.S.

AUGUST 2015

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	9	30



BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2015 ADT
VOLUMES

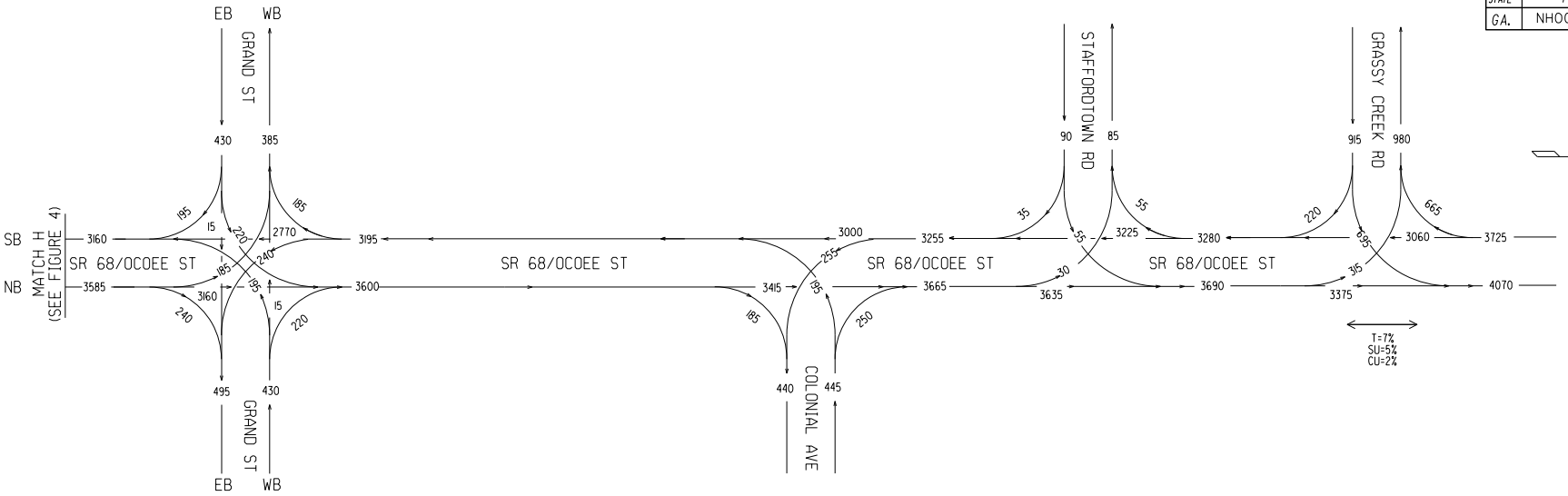
JACOBS™

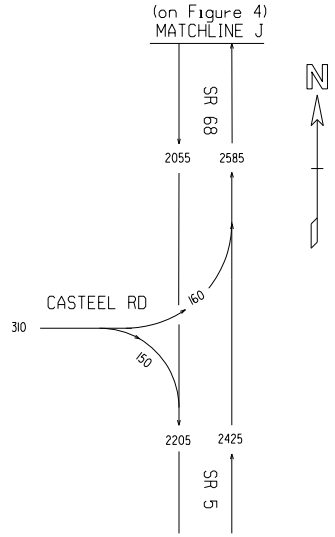
FIGURE 9

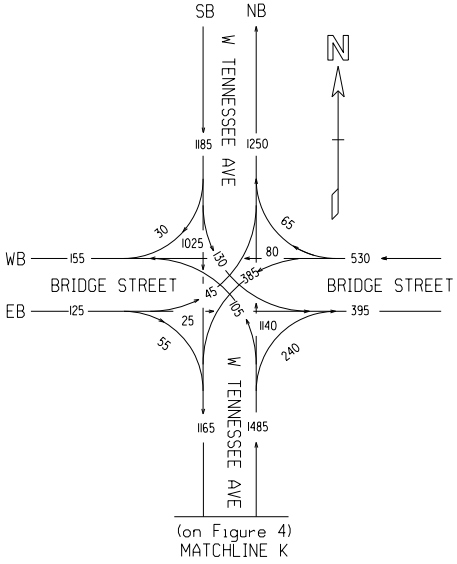
SCALE: N.T.S.

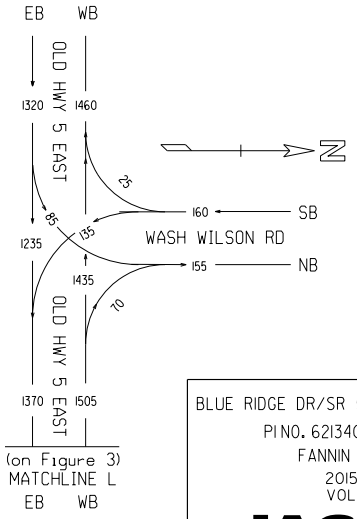
AUGUST 2015

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	10	30









BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2015 ADT
VOLUMES

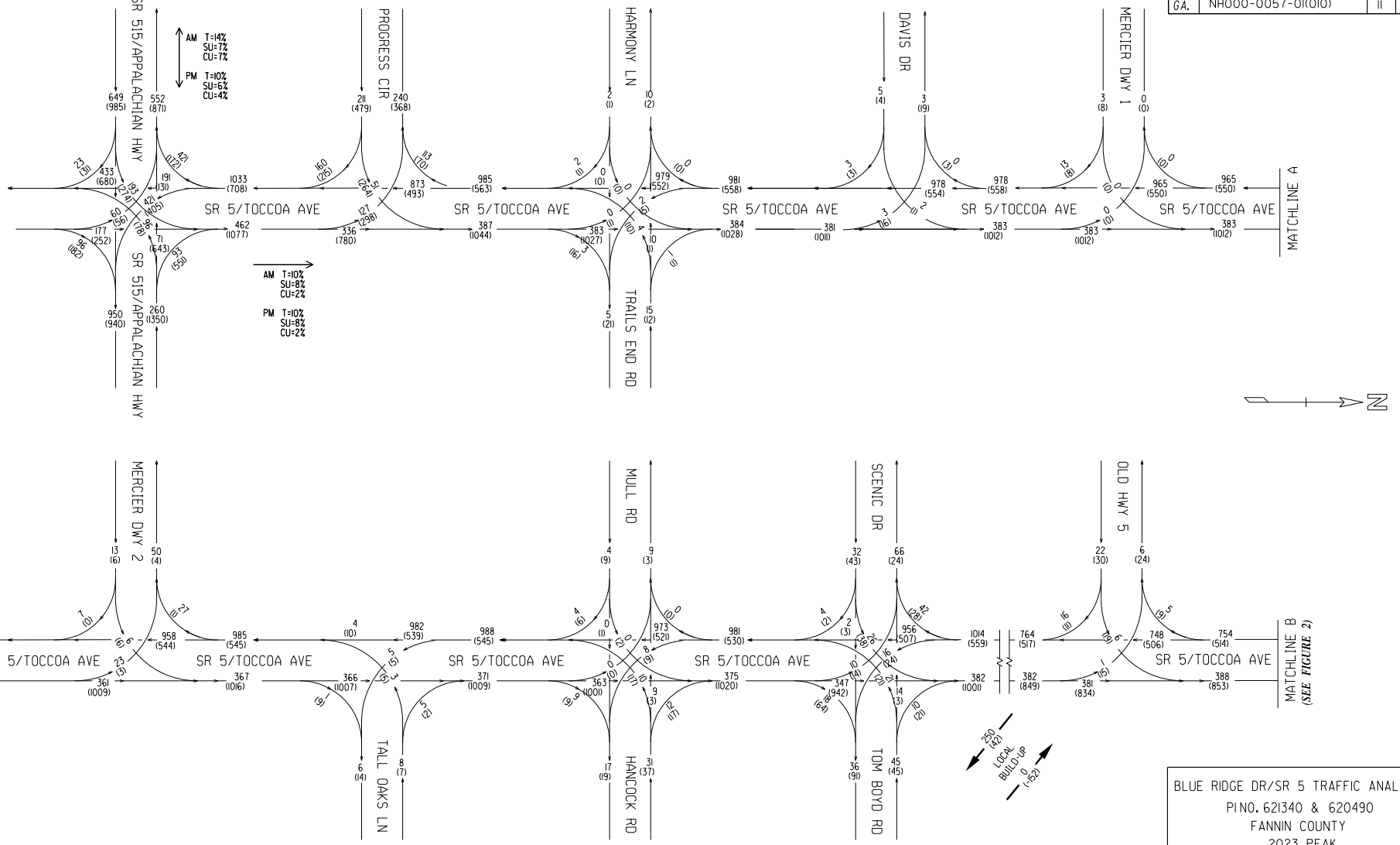
JACOBS™

FIGURE 10

SCALE: N.T.S.

AUGUST 2015

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	11	30



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2023 PEAK
HOUR VOLUMES

JACOBS™

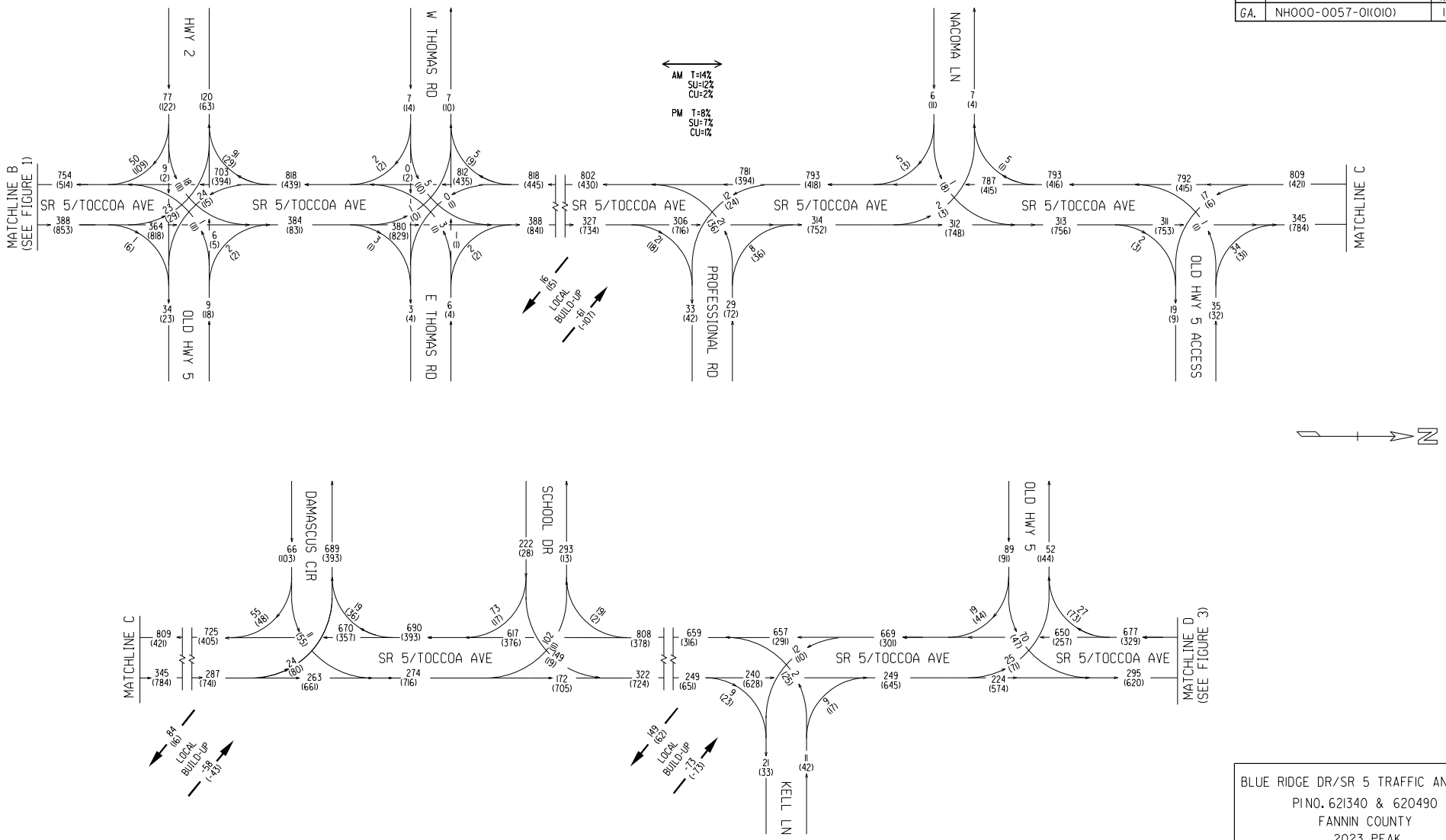
FIGURE 11

SCALE: N.T.S.

AUGUST 2015

$DATE$ 10:15:06 AM Kay.Sharpe $FILE$

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	12	30



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2023 PEAK
HOUR VOLUMES

JACOBS™

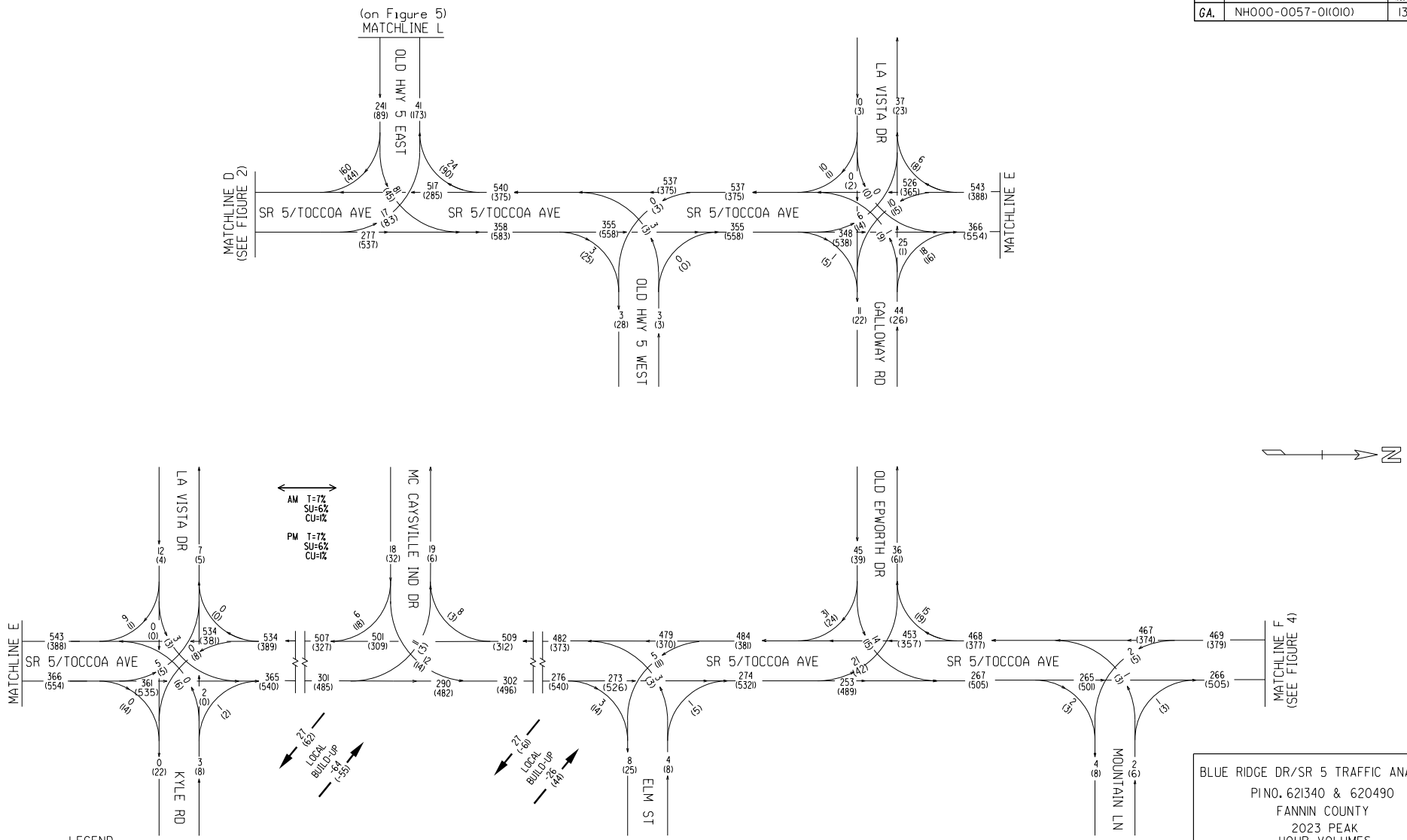
FIGURE 12

SCALE: N.T.S.

AUGUST 2015

$DATE$ 10:15:06 AM Kay.Sharpe $FILE$

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	13	30



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2023 PEAK
HOUR VOLUMES

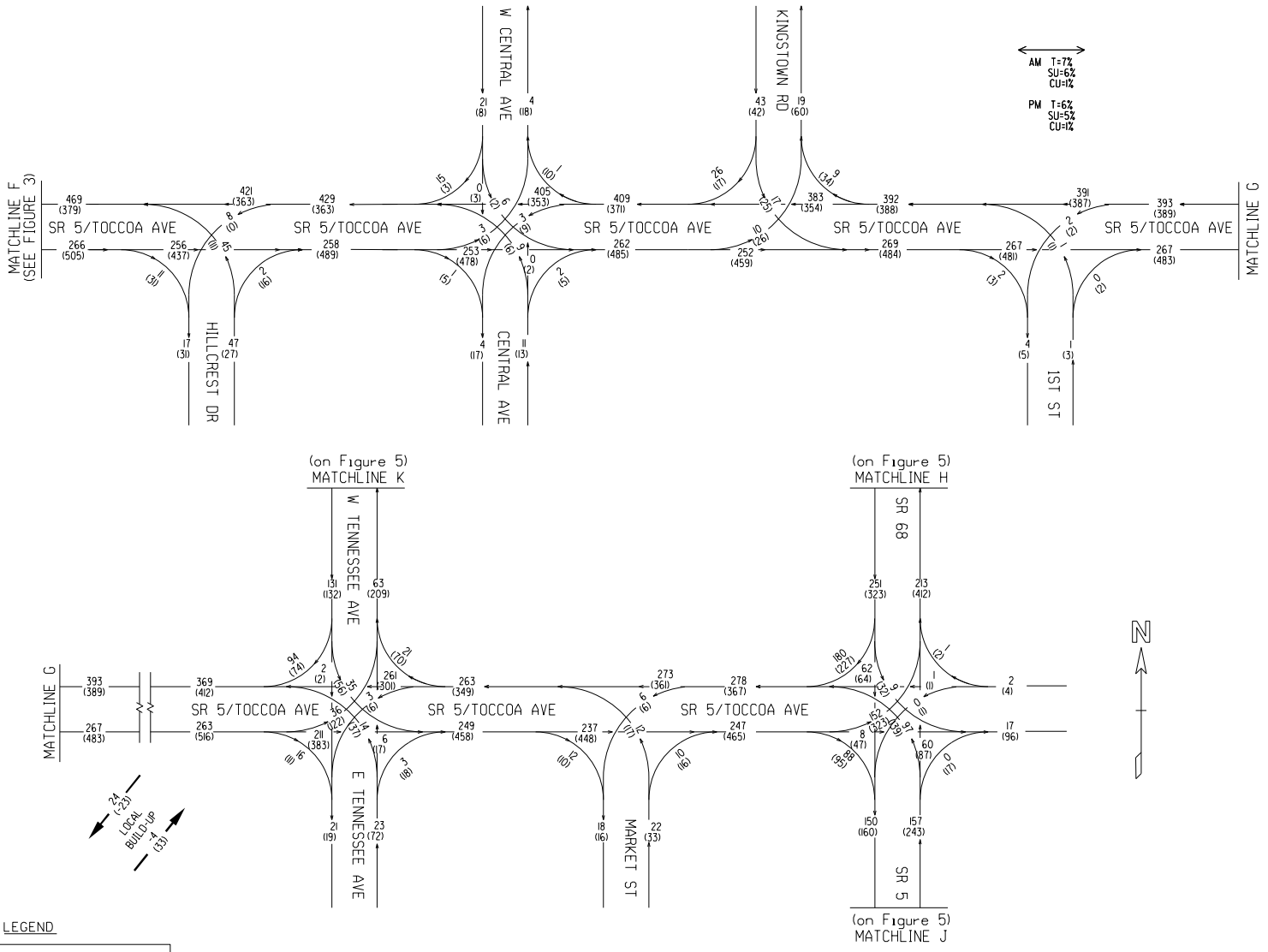
JACOBS™

FIGURE 13

SCALE: N.T.S.

AUGUST 2015

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	14	30



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2023 PEAK
HOUR VOLUMES

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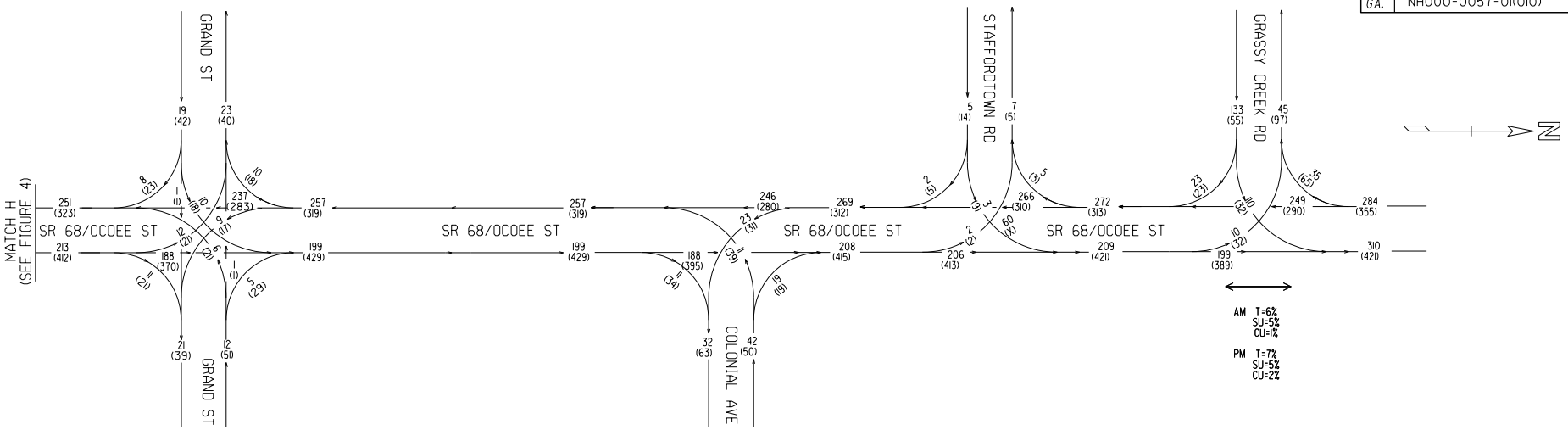
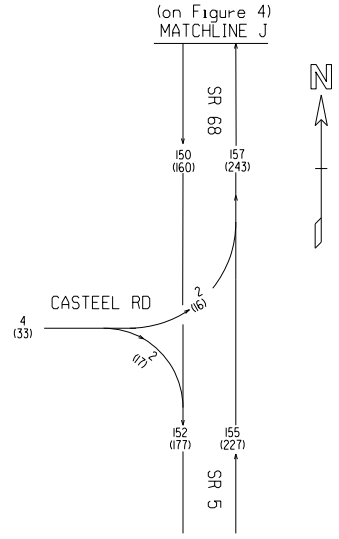
FIGURE 14

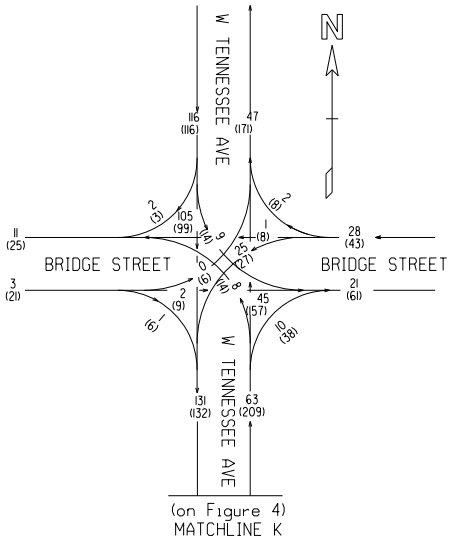
SCALE: N.T.S.

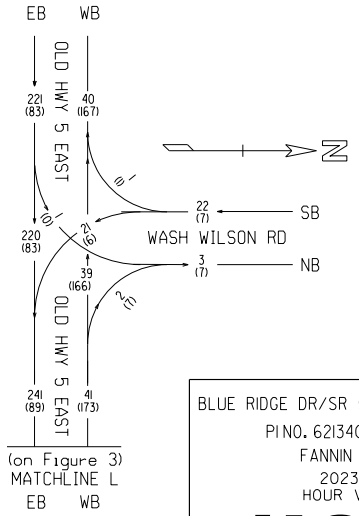
AUGUST 2015

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	15	30









LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2023 PEAK
HOUR VOLUMES

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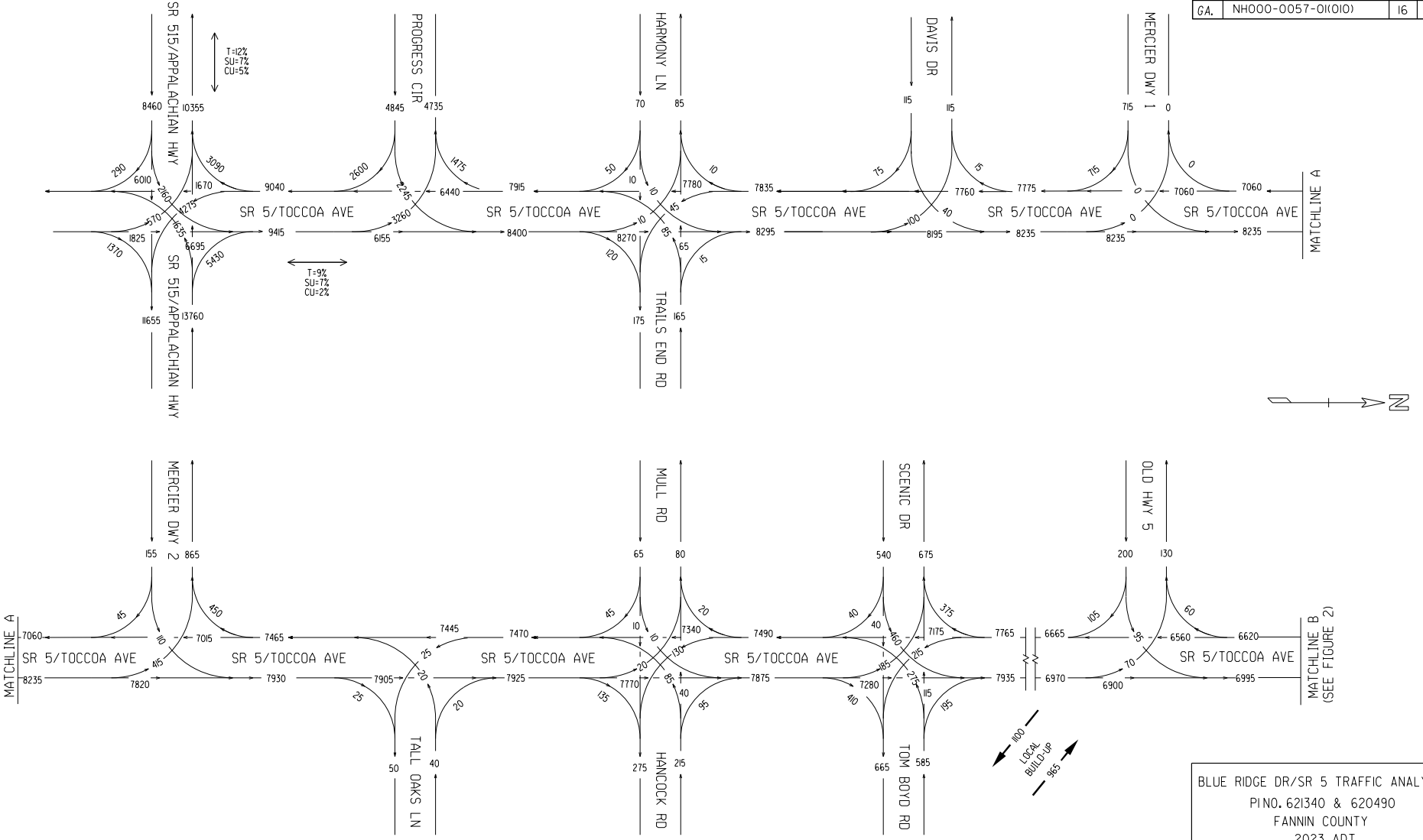
FIGURE 15

SCALE: N.T.S.

AUGUST 2015

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	16	30



BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2023 ADT
VOLUMES

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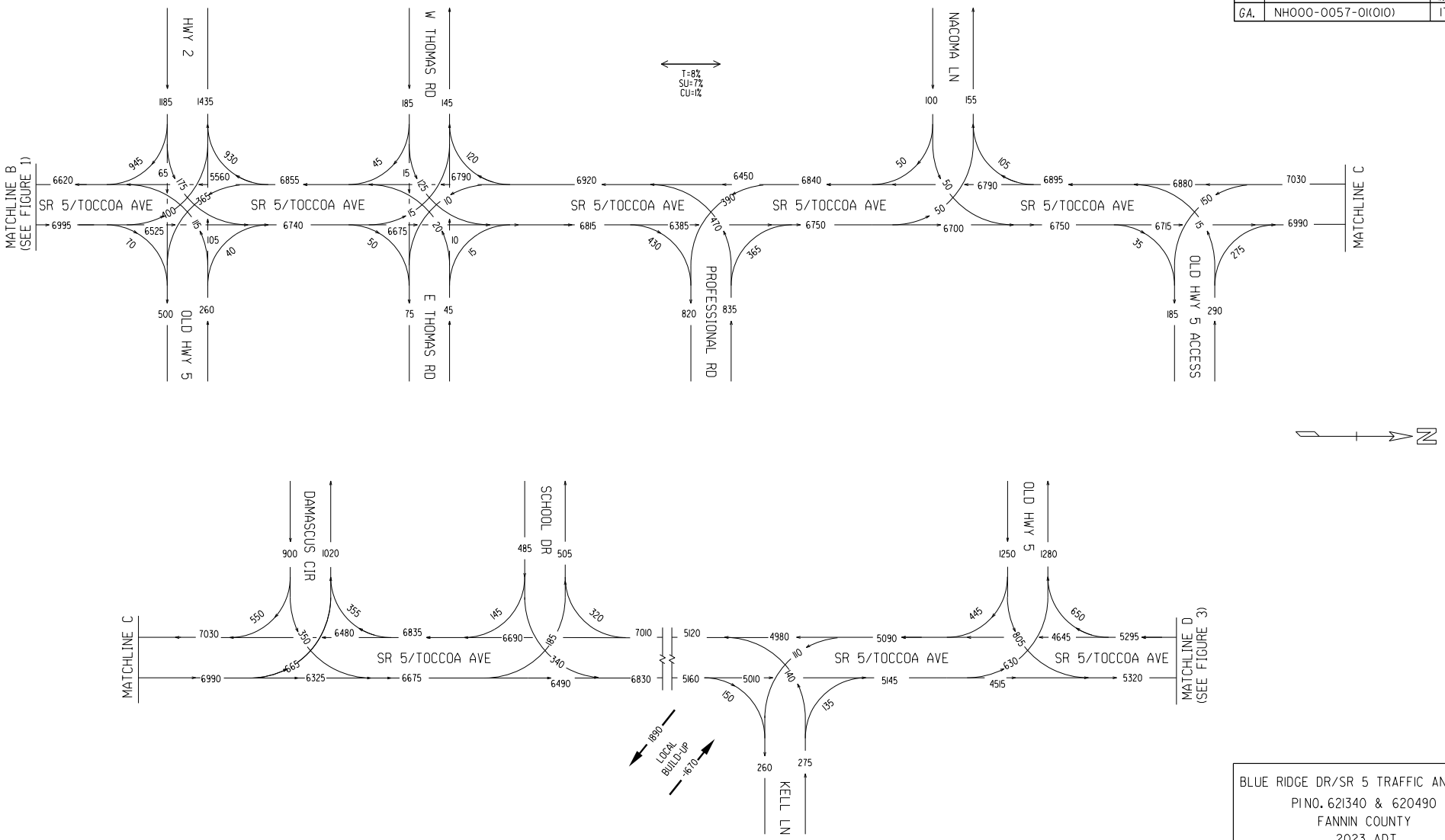
FIGURE 16

SCALE: N.T.S.

AUGUST 2015

$DATE$ 10:51:10 AM Kay.Sharpe $FILE$

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	17	30



BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2023 ADT
VOLUMES

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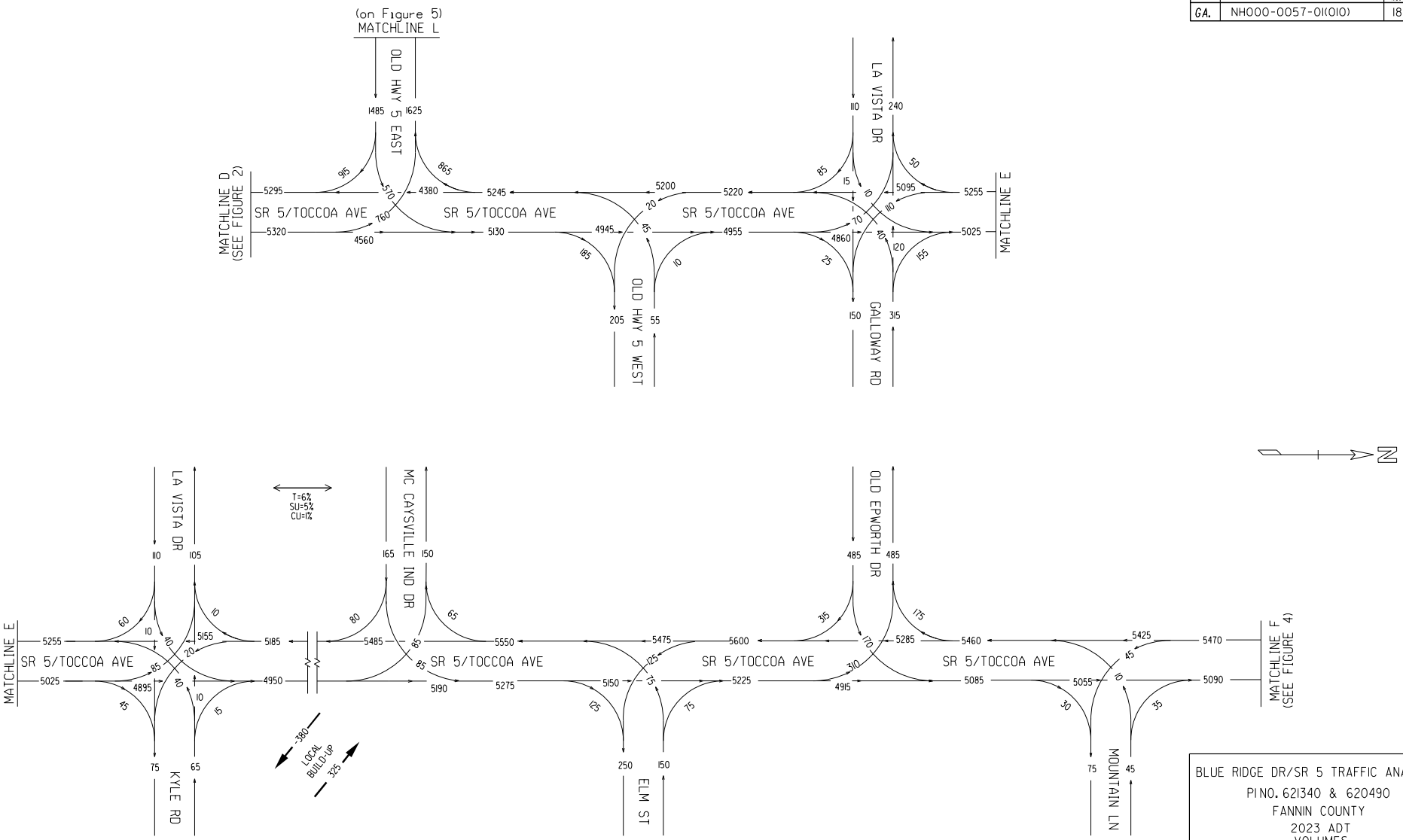
FIGURE 17

SCALE: N.T.S. AUGUST 2015

$DATE$ 10:51:10 AM Kay.Sharpe $FILE$

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	18	30



BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2023 ADT
VOLUMES

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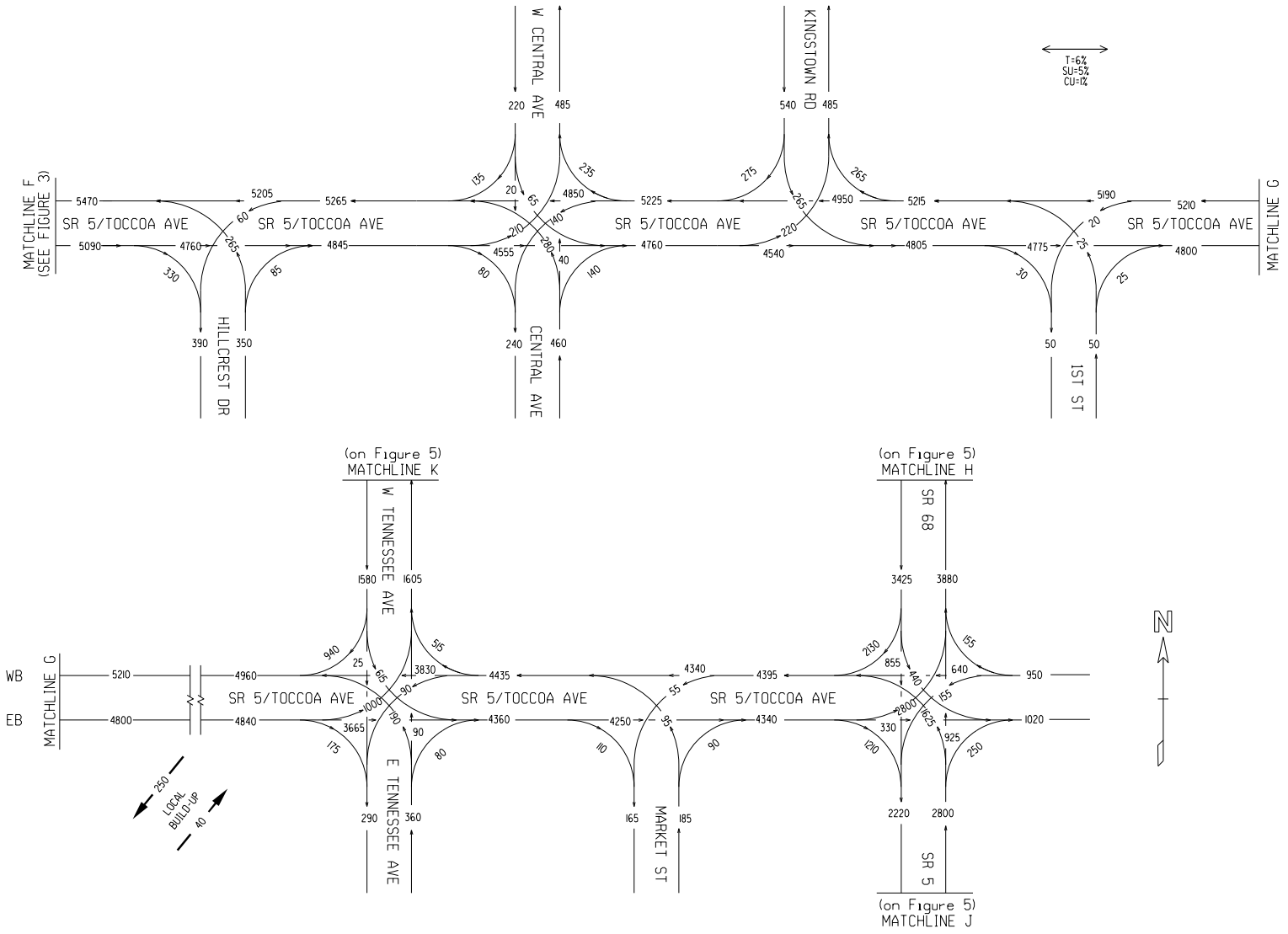
FIGURE 18

SCALE: N.T.S.

AUGUST 2015

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	19	30



BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2023 ADT VOLUMES

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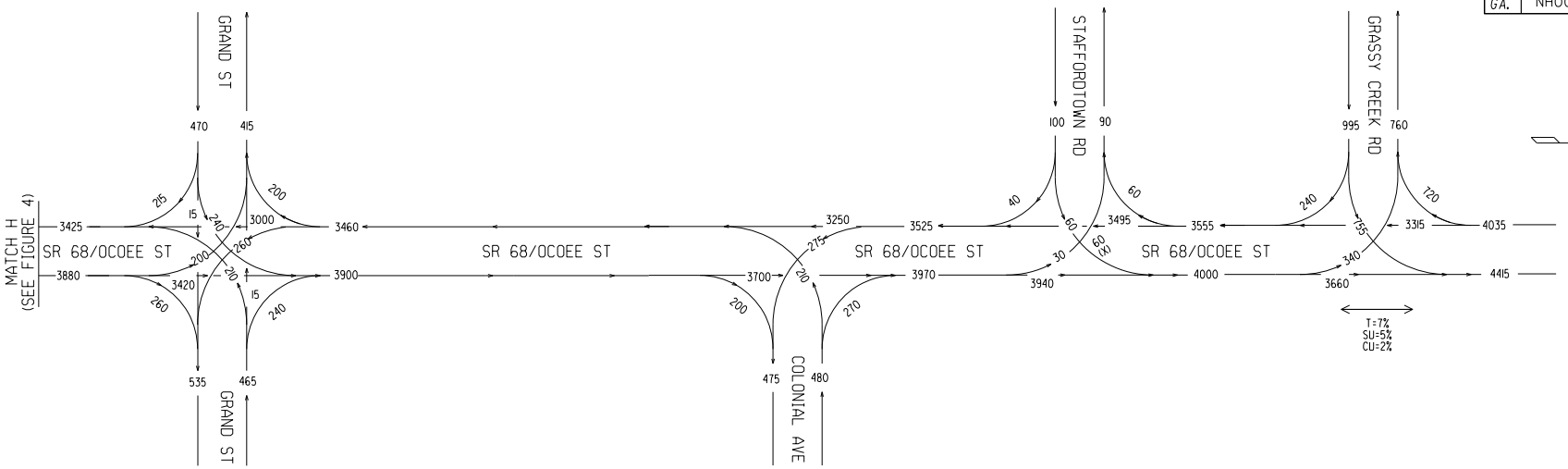
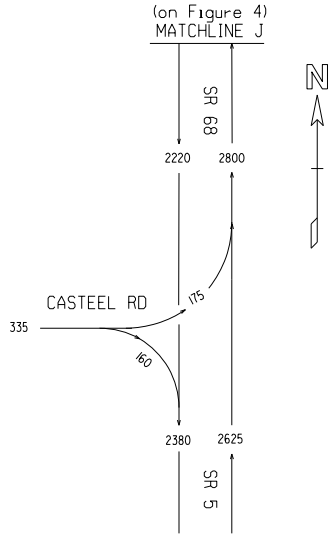
FIGURE 19

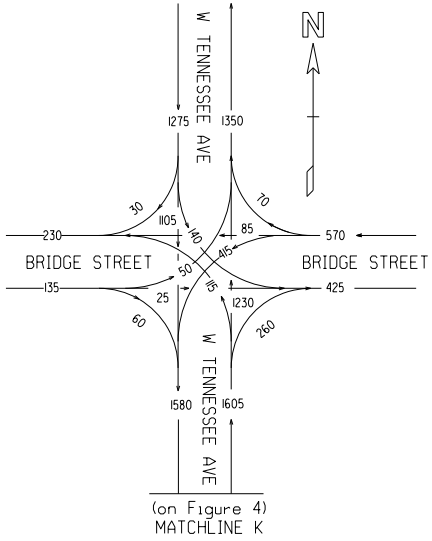
SCALE: N.T.S.

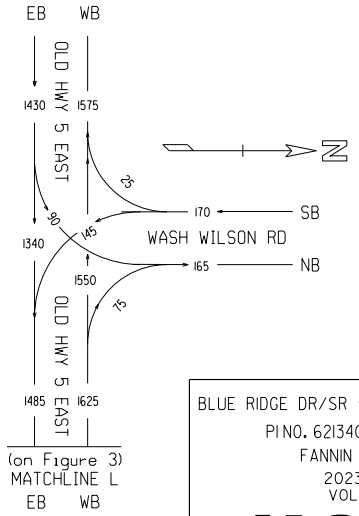
AUGUST 2015

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	20	30









BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2023 ADT
VOLUMES

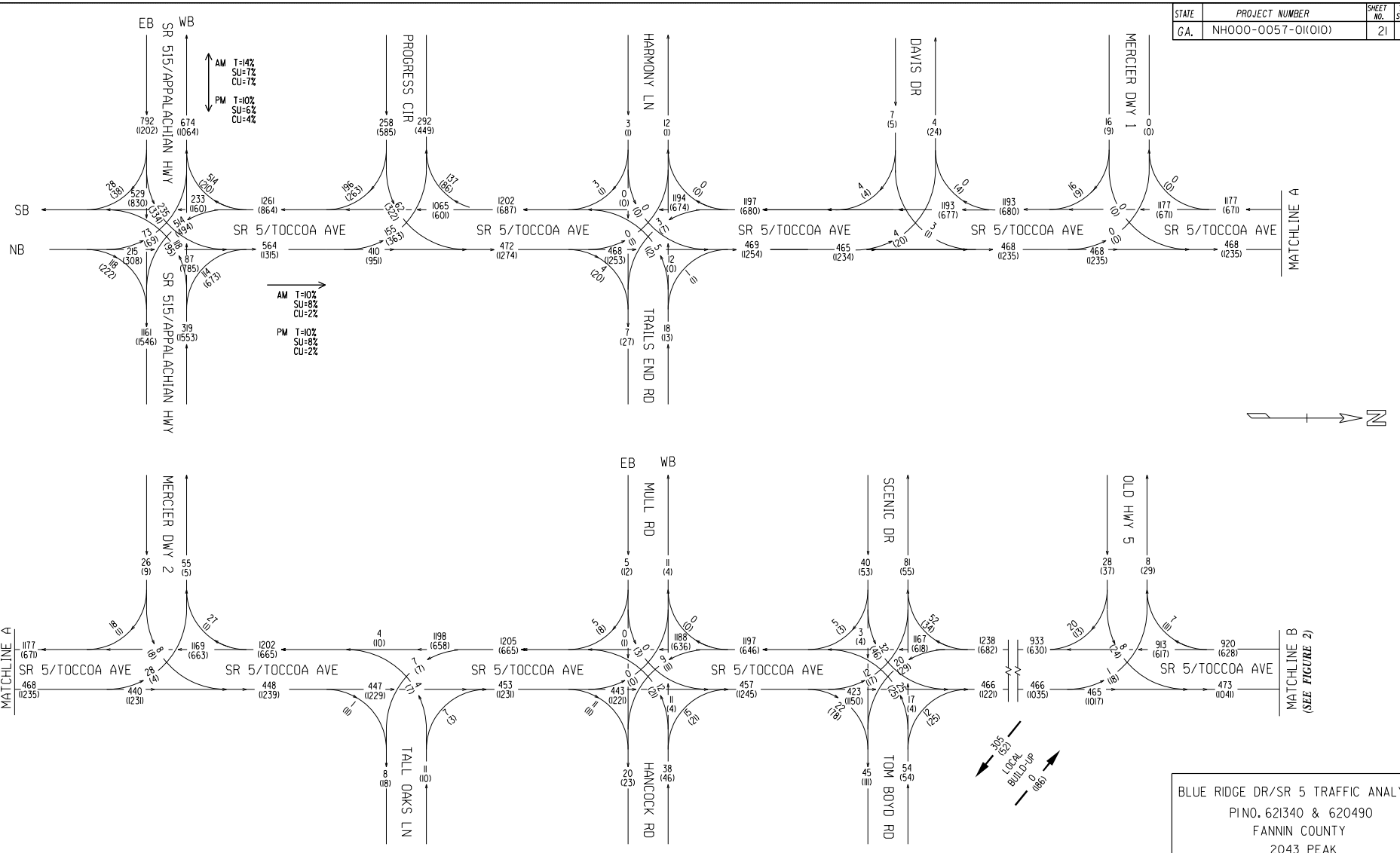
JACOBS™

FIGURE 20

SCALE: N.T.S.

AUGUST 2015

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	21	30



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2043 PEAK
HOUR VOLUMES

JACOBS™

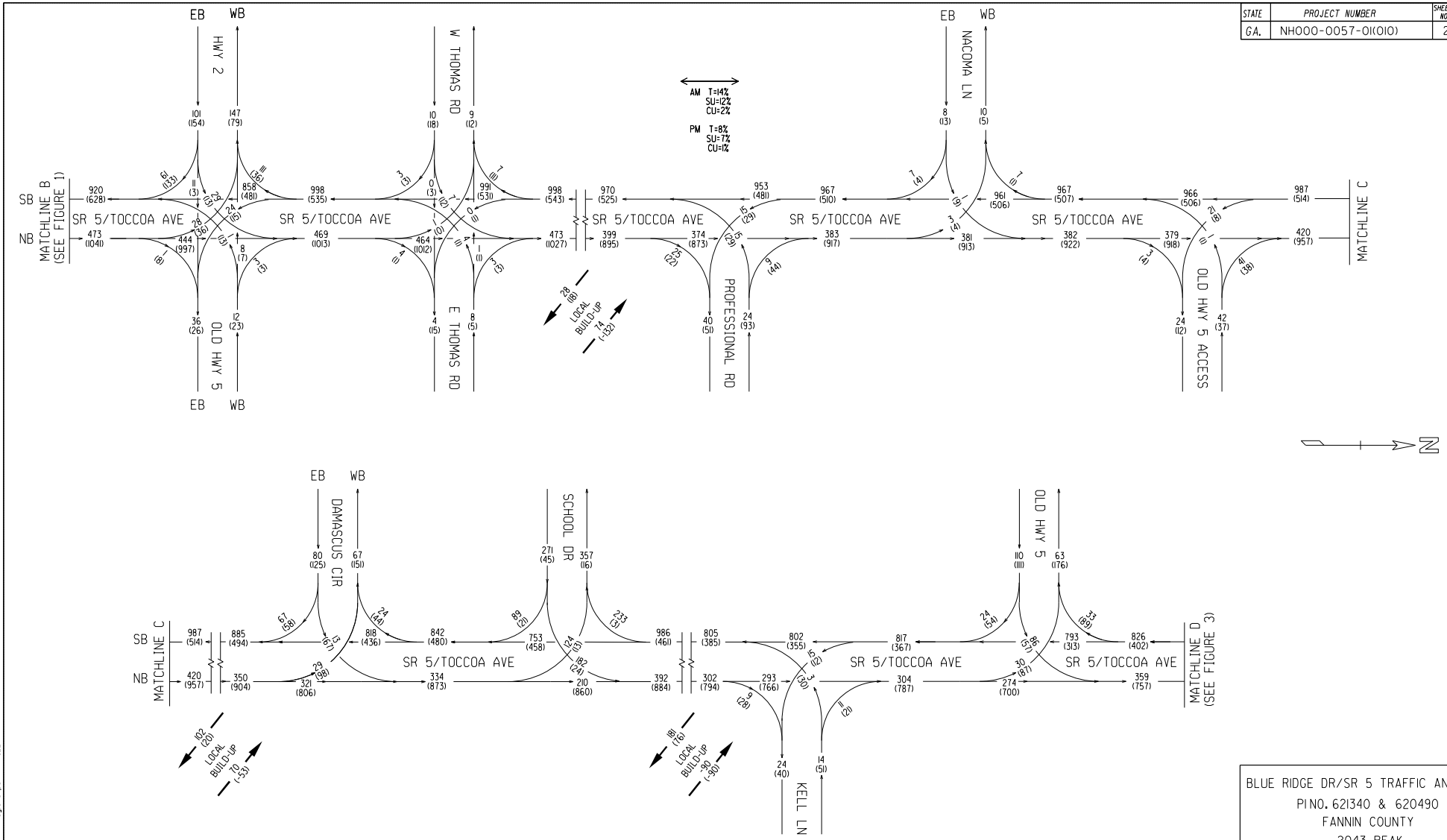
FIGURE 21

SCALE: N.T.S.

AUGUST 2015

$DATE$ 10:15:07 AM Kay.Sharpe $FILE$

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	22	30



LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2043 PEAK
HOUR VOLUMES

JACOBS™

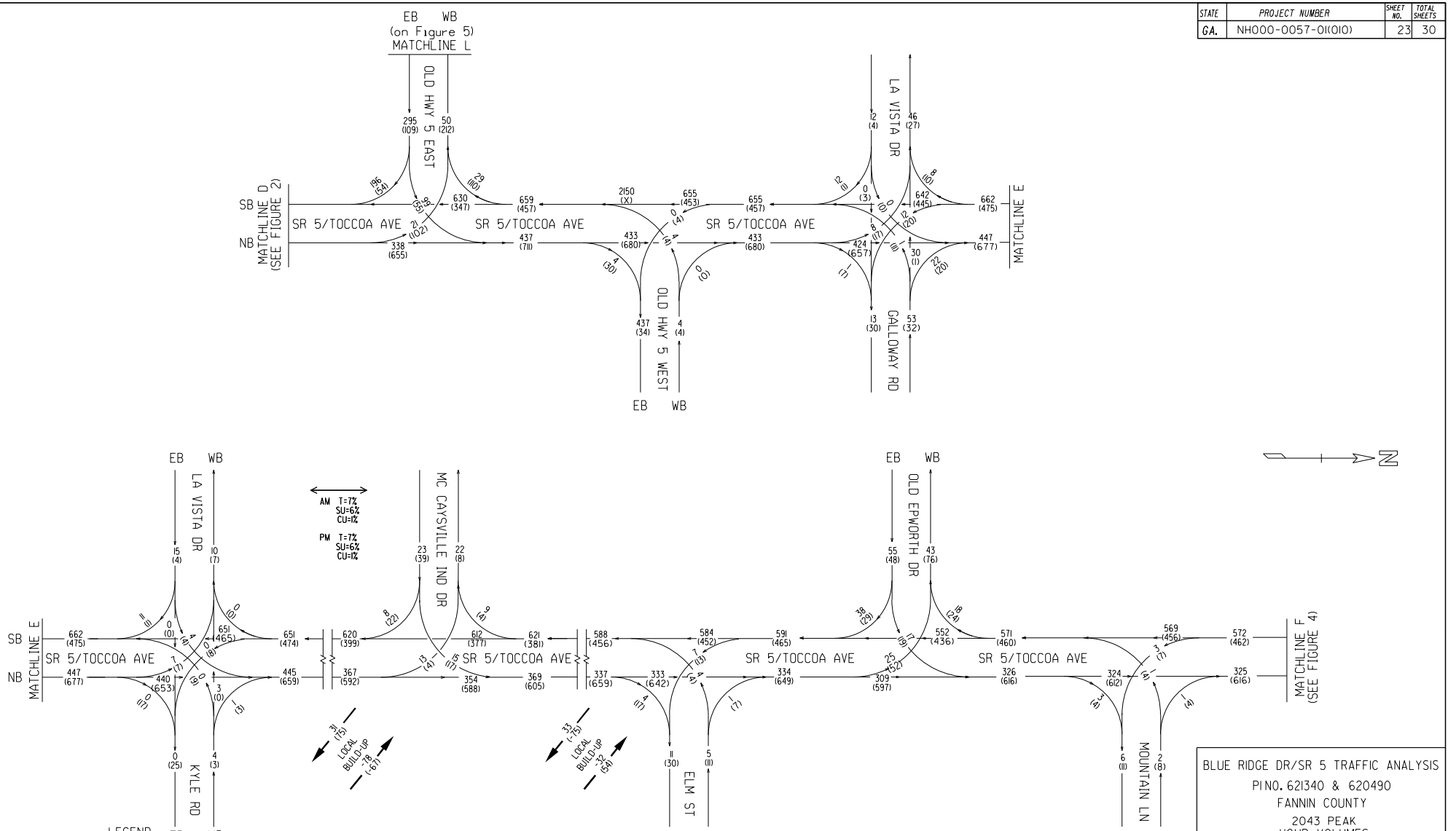
FIGURE 22

SCALE: N.T.S.

AUGUST 2015

$DATE$ 10:15:07 AM Kay.Sharpe $FILE$

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	23	30



BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2043 PEAK
HOUR VOLUMES

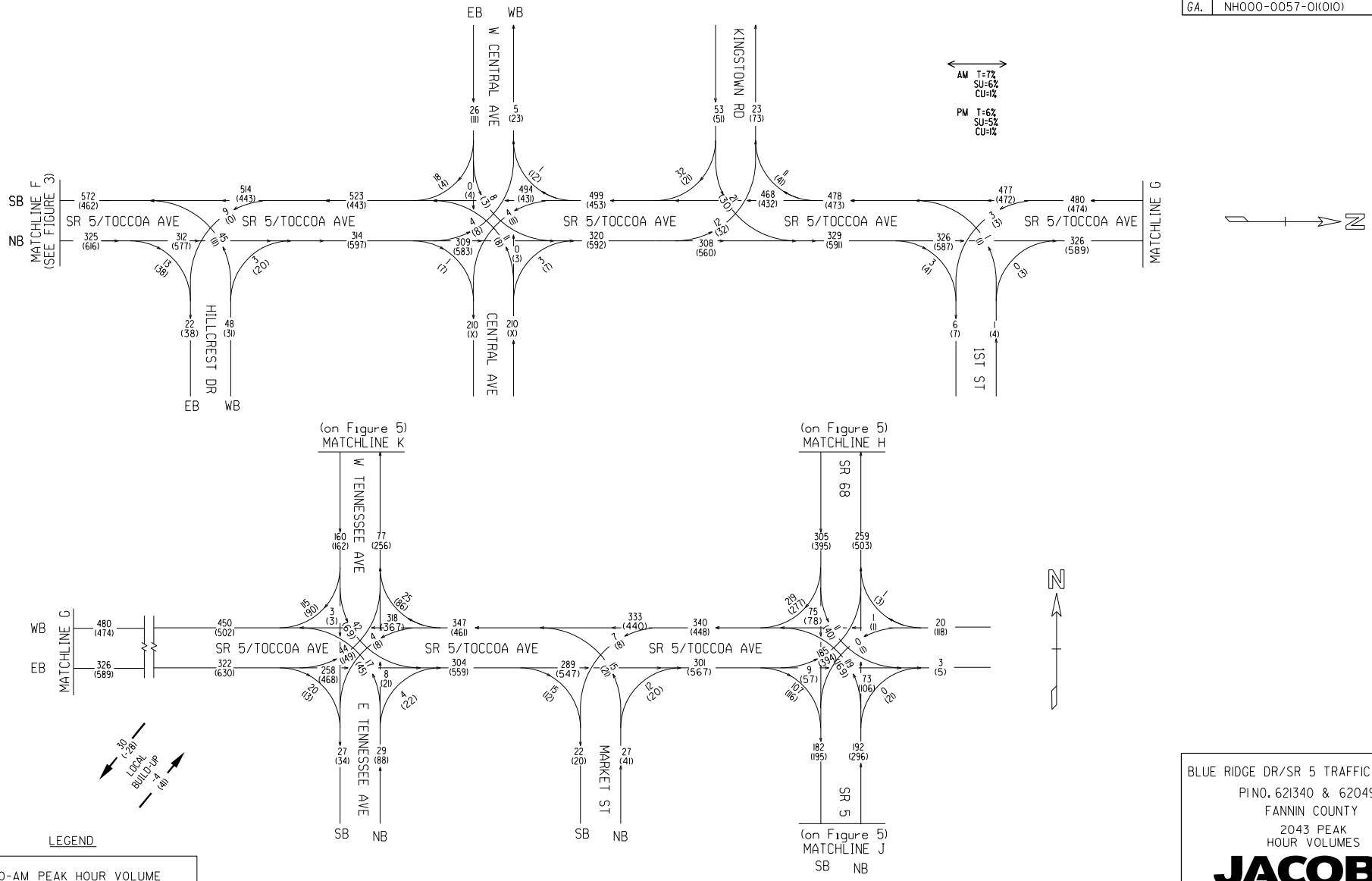
JACOBS™

FIGURE 23

SCALE: N.T.S.

AUGUST 2015

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	24	30



BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2043 PEAK HOUR VOLUMES

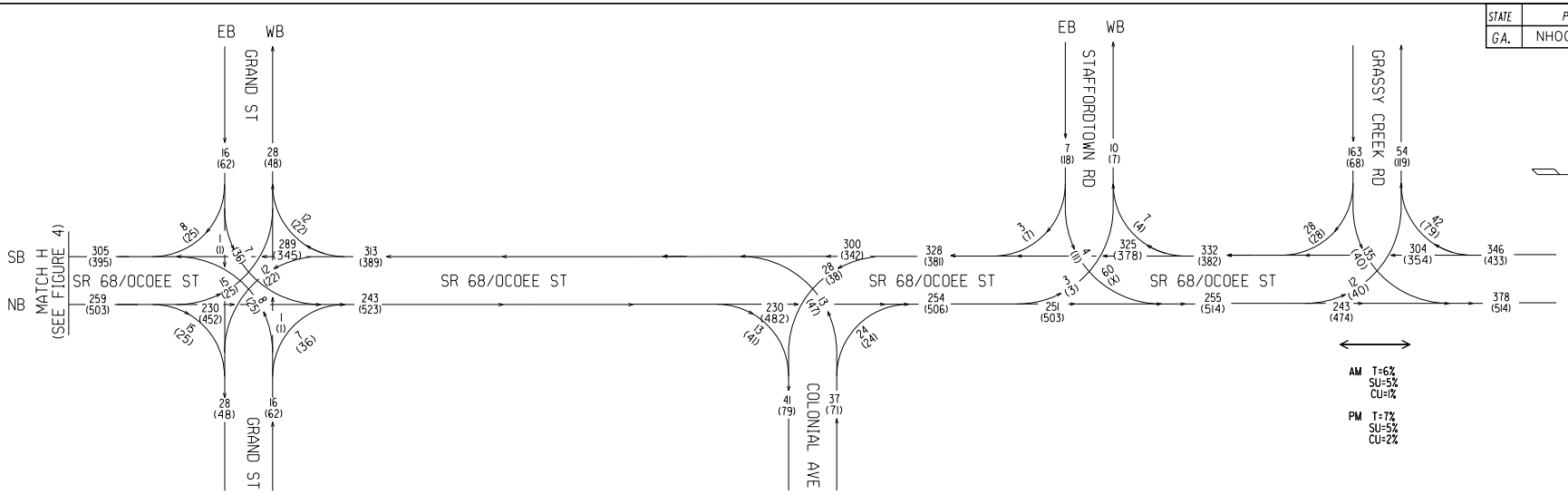
JACOBS™

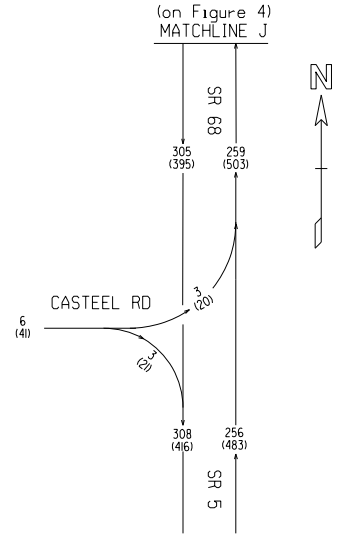
FIGURE 24

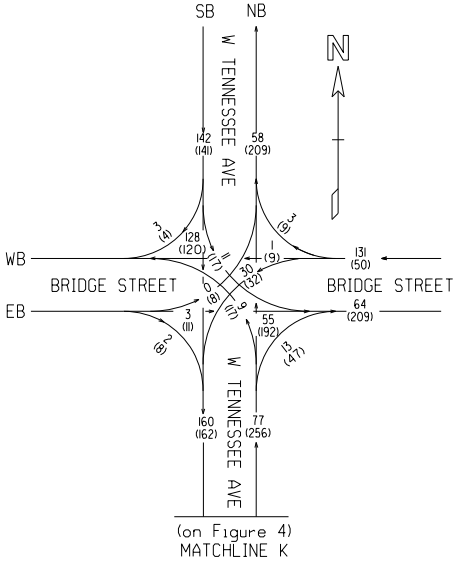
SCALE: N.T.S.

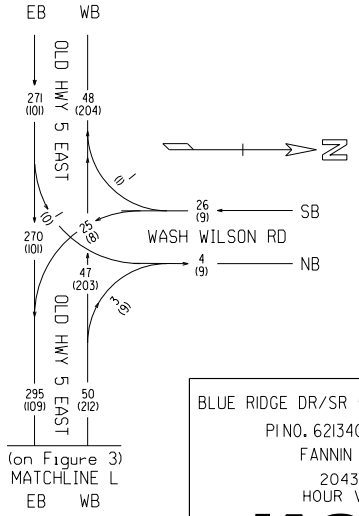
AUGUST 2015

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	25	30









LEGEND

000-AM PEAK HOUR VOLUME
(000)-PM PEAK HOUR VOLUME

BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2043 PEAK
HOUR VOLUMES

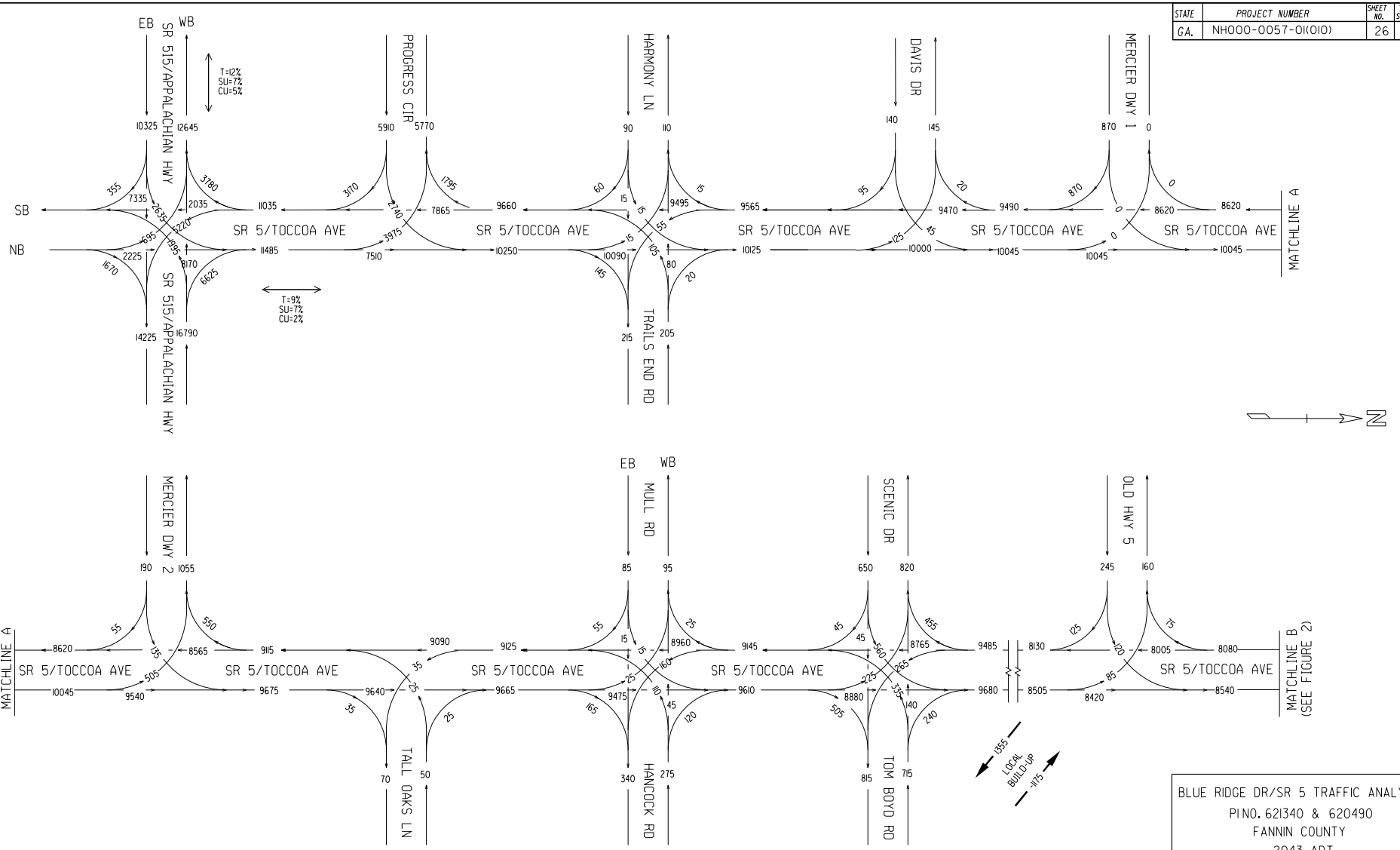
JACOBS™

FIGURE 25

SCALE: N.T.S.

AUGUST 2015

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	26	30



BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2043 ADT
VOLUMES

JACOBS™

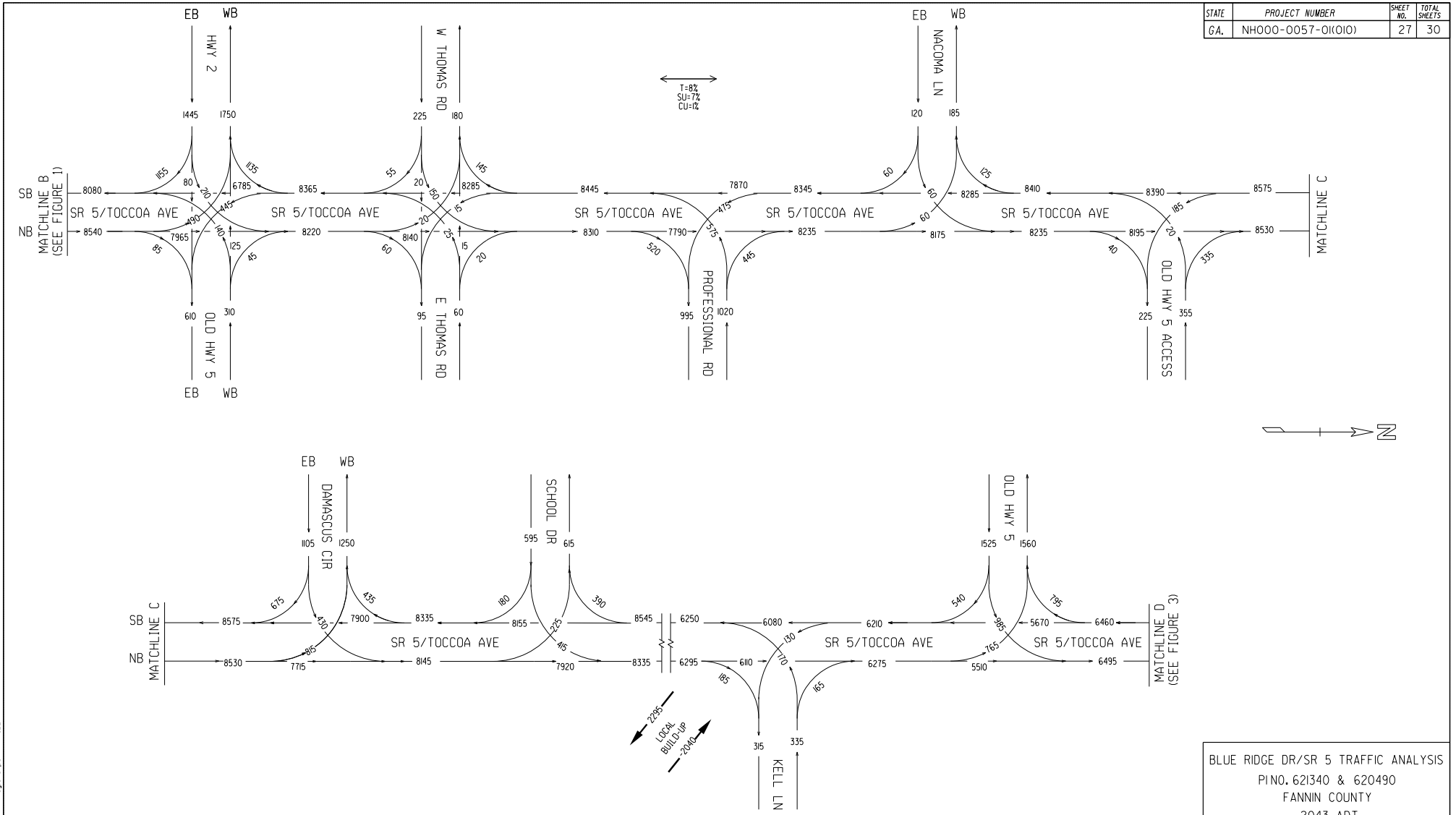
FIGURE 26

SCALE: N.T.S.

AUGUST 2015

$DATE$ 10:15:08 AM Kay.Sharpe $FILE$

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	27	30



BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2043 ADT
VOLUMES

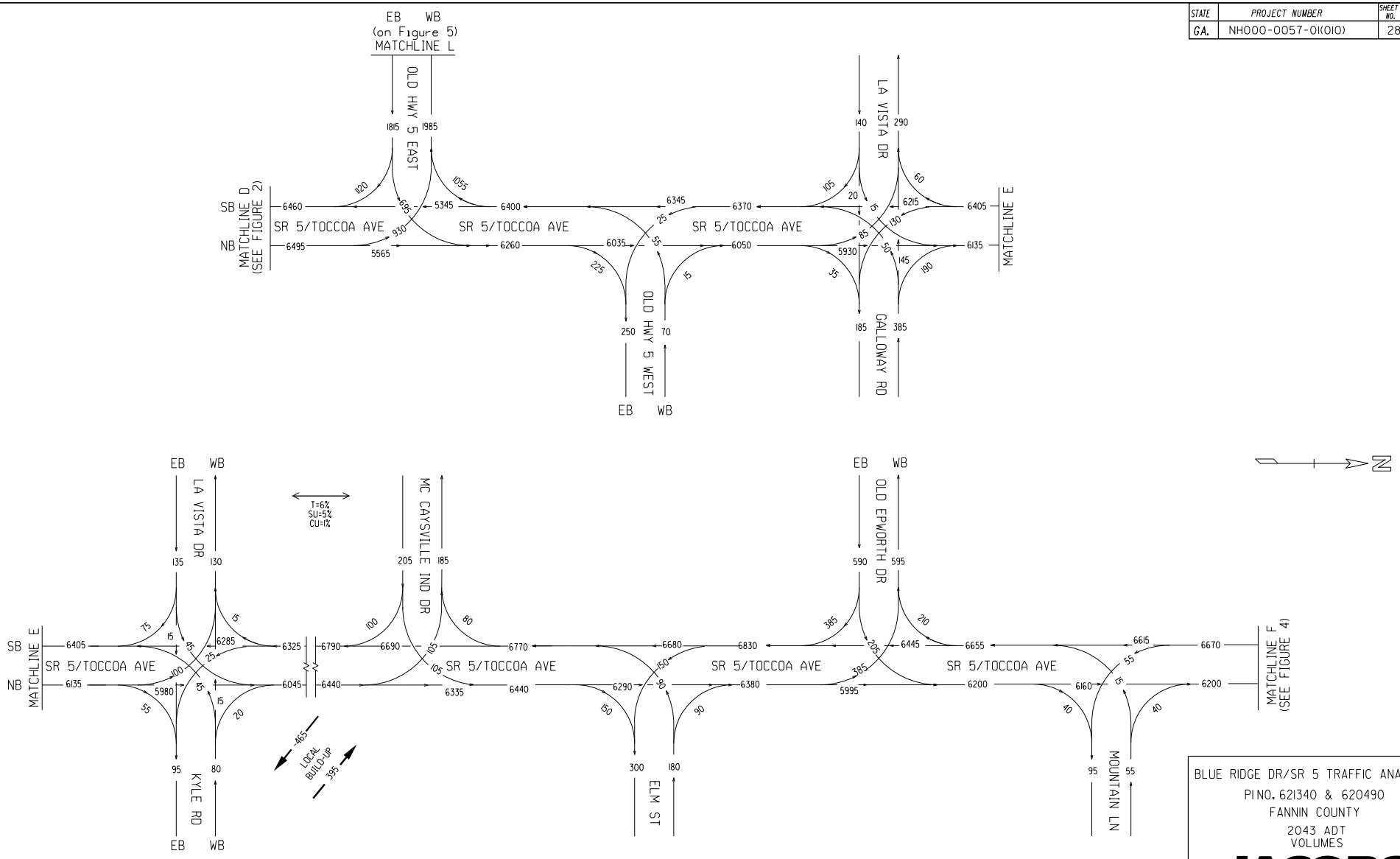
JACOBS™

FIGURE 27

SCALE: N.T.S. AUGUST 2015

$DATE$ 10:15:08 AM Kay.Sharpe $FILE$

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	28	30



BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2043 ADT
VOLUMES

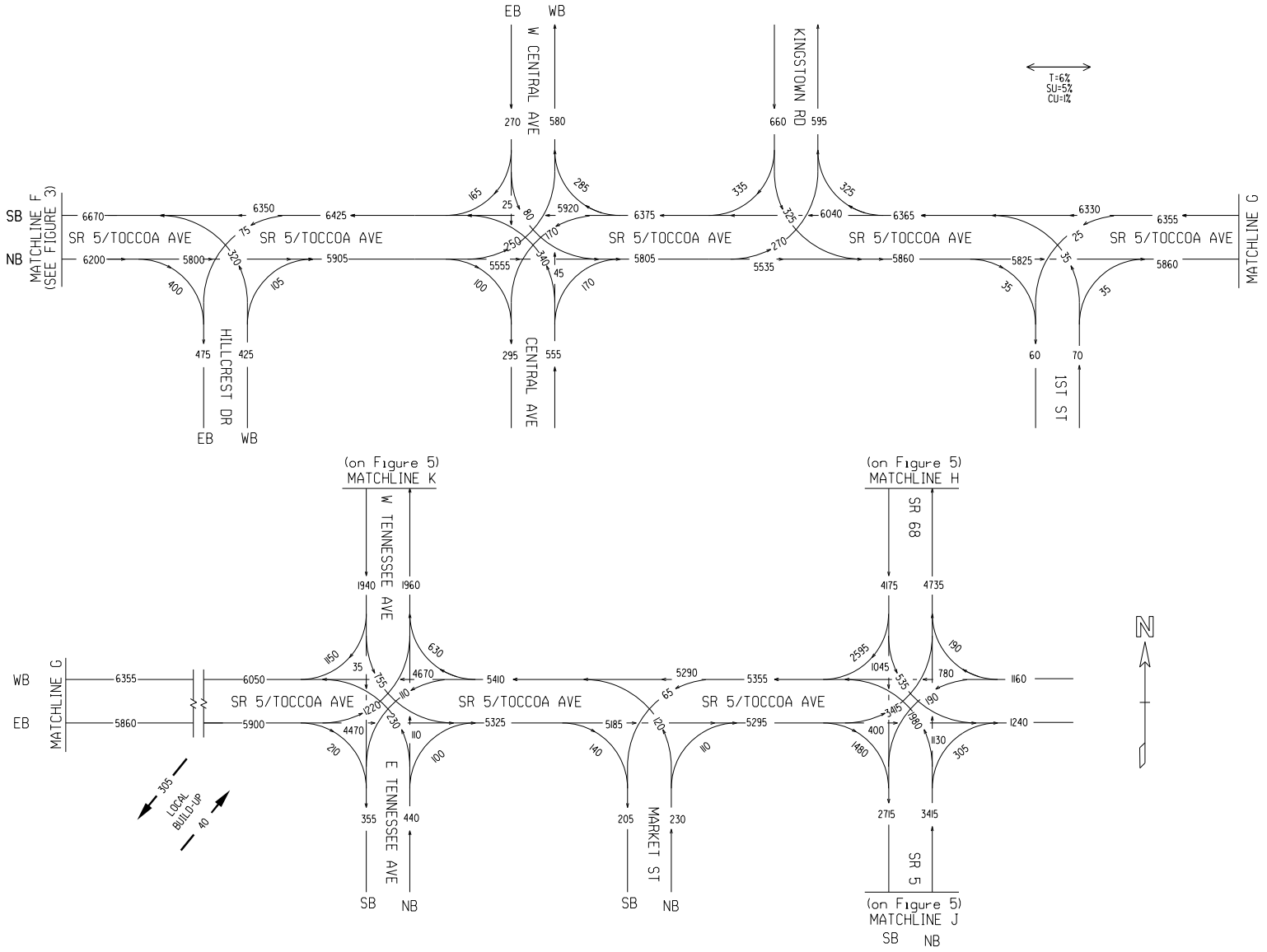
JACOBS™

FIGURE 28

SCALE: N.T.S.

AUGUST 2015

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	29	30



BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2043 ADT VOLUMES

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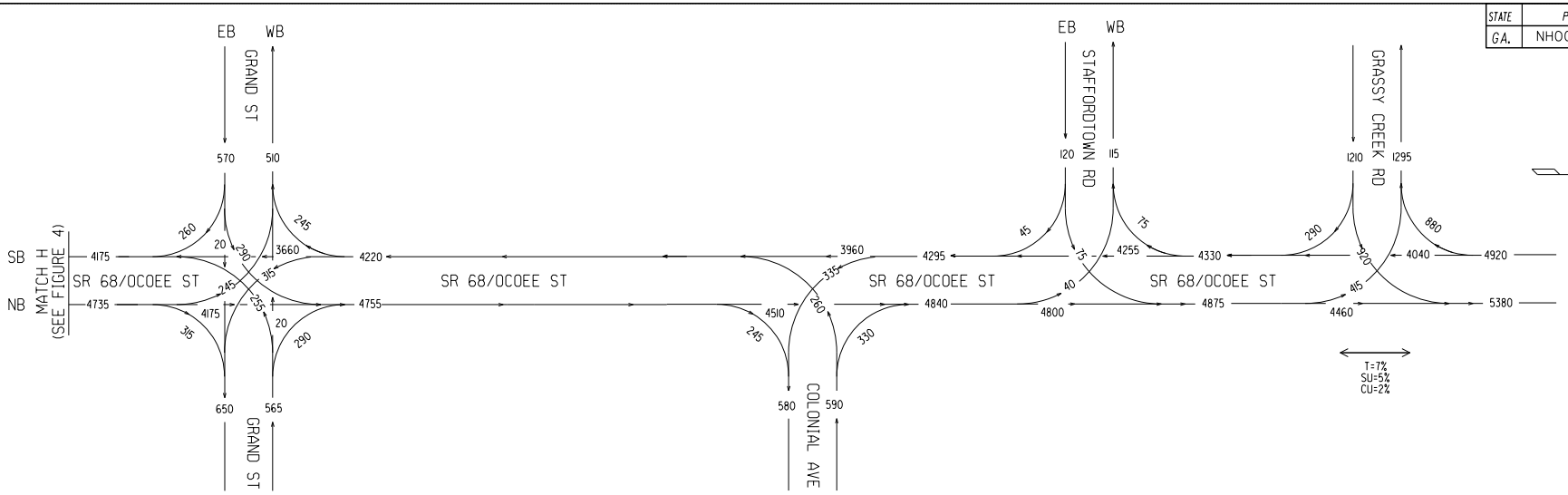
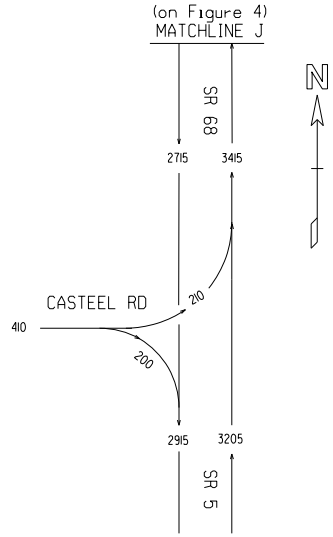
FIGURE 29

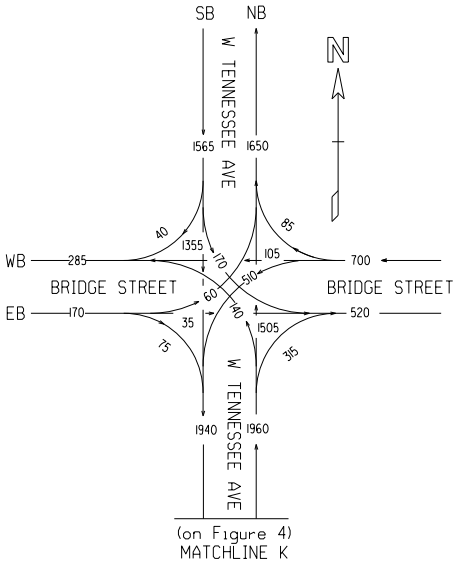
SCALE: N.T.S.

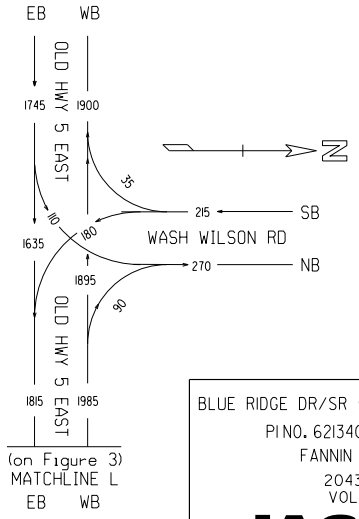
AUGUST 2015

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	NH000-0057-01(010)	30	30









BLUE RIDGE DR/SR 5 TRAFFIC ANALYSIS
PI NO. 621340 & 620490
FANNIN COUNTY
2043 ADT
VOLUMES

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FIGURE 30

SCALE: N.T.S.

AUGUST 2015

Attachment 6

Capacity Analysis Summary

Intersections	SR 5 Volume (2043 ADT)			Side Street Volume (2043 ADT)			Total Volume	Is Side Street Volume > 10% of Total Volume?	Can a roundabout perform acceptably at this intersection?
	Northbound	Southbound	Total	Eastbound	Westbound	Total			
Progress Cir. (EXISTING SIGNAL)	11485	9660	21145	5910	0	5910	27055	YES	YES
Harmony Ln. & Trails End Rd.	10250	9565	19815	90	205	295	20110		NO
Davis Dr.	10125	9490	19615	140	0	140	19755		NO
Tall Oaks Ln.	9675	9125	18800	0	50	50	18850		NO
Mull Rd. & Hancock Rd.	9664	9145	18809	85	275	360	19169		NO
Scenic Dr. & Tom Boyd Rd.	9610	9485	19095	650	715	1365	20460		NO
Old Hwy 5	8505	8080	16585	245	0	245	16830		NO
Hwy 2 & Old Hwy 5	8540	8365	16905	1445	310	1755	18660		NO
W Thomas Rd. & E Thomas Rd.	8220	8445	16665	225	60	285	16950		NO
Professional Rd.	8310	8345	16655	0	1020	1020	17675		NO
Nacoma Ln.	8235	8410	16645	120	0	120	16765		NO
Old Hwy 5 Access	8235	8575	16810	0	355	355	17165		NO
Damascus Cir.	8530	8335	16865	1105	0	1105	17970		NO
School Dr.	8145	8545	16690	595	0	595	17285		NO
Kell Ln.	6295	6210	12505	0	335	335	12840		NO
Old Hwy 5	6275	6460	12735	1525	0	1525	14260	YES	YES
Old Hwy 5 East	6495	6400	12895	1815	0	1815	14710	YES	YES
Old Hwy 5 West	6260	6370	12630	0	70	70	12700		NO
La Vista Dr. & Galloway Rd.	6050	6405	12455	140	385	525	12980		NO
La Vista Dr. & Kyle Rd.	6135	6325	12460	135	80	215	12675		NO
McCaysville Ind. Dr.	6440	6770	13210	205	0	205	13415		NO
Elm St.	6440	6830	13270	0	180	180	13450		NO
Old Epworth Dr.	6380	6655	13035	590	0	590	13625		NO
Mountain Ln.	6200	6670	12870	0	55	55	12925		NO
Hillcrest Dr.	6200	6425	12625	0	425	425	13050		NO
W Central Ave. & Central Ave.	5905	6375	12280	270	555	825	13105		NO
Kingstown Rd.	5805	6365	12170	660	0	660	12830		NO
1st St.	5860	6355	12215	0	70	70	12285		NO
nessee Ave. & E Tennessee Ave. (EXISTING SI	5900	5410	11310	1940	440	2380	13690	YES	YES
Market St.	5325	5355	10680	0	230	230	10910		NO
	0	0	0	0	0	0	0		NO
	0	0	0	0	0	0	0		NO
	0	0	0	0	0	0	0		NO
	0	0	0	0	0	0	0		NO

SR 5 and Old Highway 5 East: Average Delay (sec) and Level-of-Service

2015									
AM					PM				
SR 5 SW		SR 5 NE		Old Hwy 5	SR 5 SW		SR 5 NE		Old Hwy 5
Thru	*Right-Thru*	*Thru*	*Right-Thru*	*Lf-Th-Rt*	*Thru*	*Right-Thru*	*Thru*	*Right-Thru*	*Lf-Th-Rt*
4.4	4.6	4.1	4.0	7.0	4.2	4.3	5.1	5.1	4.0
A	A	A	A	A	A	A	A	A	A
2023									
AM					PM				
SR 5 SW		SR 5 NE		Old Hwy 5	SR 5 SW		SR 5 NE		Old Hwy 5
Thru	*Right-Thru*	*Thru*	*Right-Thru*	*Lf-Th-Rt*	*Thru*	*Right-Thru*	*Thru*	*Right-Thru*	*Lf-Th-Rt*
4.6	4.8	4.2	4.1	7.6	4.3	4.5	5.4	5.3	4.1
A	A	A	A	A	A	A	A	A	A
2043									
AM					PM				
SR 5 SW		SR 5 NE		Old Hwy 5	SR 5 SW		SR 5 NE		Old Hwy 5
Thru	*Right-Thru*	*Thru*	*Right-Thru*	*Lf-Th-Rt*	*Thru*	*Right-Thru*	*Thru*	*Right-Thru*	*Lf-Th-Rt*
5.0	5.4	4.6	4.4	10.2	4.7	5	6.1	6.1	4.6
A	A	A	A	B	A	A	A	A	A

SR 5 and Old Highway 5 East: 95th Percentile Queue (feet)

2015									
AM					PM				
SR 5 SW		SR 5 NE		Old Hwy 5	SR 5 SW		SR 5 NE		Old Hwy 5
Thru	*Right-Thru*	*Thru*	*Right-Thru*	*Lf-Th-Rt*	*Thru*	*Right-Thru*	*Thru*	*Right-Thru*	*Lf-Th-Rt*
19	23	11	12	28	14	16	25	28	7
2023									
AM					PM				
SR 5 SW		SR 5 NE		Old Hwy 5	SR 5 SW		SR 5 NE		Old Hwy 5
Thru	*Right-Thru*	*Thru*	*Right-Thru*	*Lf-Th-Rt*	*Thru*	*Right-Thru*	*Thru*	*Right-Thru*	*Lf-Th-Rt*
21	25	12	13	33	15	17	28	31	7
2043									
AM					PM				
SR 5 SW		SR 5 NE		Old Hwy 5	SR 5 SW		SR 5 NE		Old Hwy 5
Thru	*Right-Thru*	*Thru*	*Right-Thru*	*Lf-Th-Rt*	*Thru*	*Right-Thru*	*Thru*	*Right-Thru*	*Lf-Th-Rt*
28	33	15	16	53	19	23	38	42	10

SR 5 and Old Highway 5: Average Delay (sec) and Level-of-Service

2015									
AM					PM				
SR 5 SW		SR 5 NE		Old Hwy 5	SR 5 SW		SR 5 NE		Old Hwy 5
Thru	*Right-Thru*	*Left-Thru*	*Thru*	*Lf-Th-Rt*	*Thru*	*Right-Thru*	*Left-Thru*	*Thru*	*Lf-Th-Rt*
5.4	5.8	4.2	4.0	6.2	4.0	4.1	5.3	5.3	3.9
A	A	A	A	A	A	A	A	A	A
2023									
AM					PM				
SR 5 SW		SR 5 NE		Old Hwy 5	SR 5 SW		SR 5 NE		Old Hwy 5
Thru	*Right-Thru*	*Left-Thru*	*Thru*	*Lf-Th-Rt*	*Thru*	*Right-Thru*	*Left-Thru*	*Thru*	*Lf-Th-Rt*
5.6	6.0	4.3	4.1	6.5	4.1	4.3	5.5	5.5	4.1
A	A	A	A	A	A	A	A	A	A
2043									
AM					PM				
SR 5 SW		SR 5 NE		Old Hwy 5	SR 5 SW		SR 5 NE		Old Hwy 5
Thru	*Right-Thru*	*Left-Thru*	*Thru*	*Lf-Th-Rt*	*Thru*	*Right-Thru*	*Left-Thru*	*Thru*	*Lf-Th-Rt*
6.3	6.9	4.6	4.5	8.2	4.4	4.6	6.1	6.3	4.5
A	A	A	A	A	A	A	A	A	A

SR 5 and Old Highway 5: 95th Percentile Queue (feet)

2015									
AM					PM				
SR 5 SW		SR 5 NE		Old Hwy 5	SR 5 SW		SR 5 NE		Old Hwy 5
Thru	*Right-Thru*	*Left-Thru*	*Thru*	*Lf-Th-Rt*	*Thru*	*Right-Thru*	*Left-Thru*	*Thru*	*Lf-Th-Rt*
32	38	10	11	10	12	13	27	30	7
2023									
AM					PM				
SR 5 SW		SR 5 NE		Old Hwy 5	SR 5 SW		SR 5 NE		Old Hwy 5
Thru	*Right-Thru*	*Left-Thru*	*Thru*	*Lf-Th-Rt*	*Thru*	*Right-Thru*	*Left-Thru*	*Thru*	*Lf-Th-Rt*
34	40	11	12	12	13	15	31	34	7
2043									
AM					PM				
SR 5 SW		SR 5 NE		Old Hwy 5	SR 5 SW		SR 5 NE		Old Hwy 5
Thru	*Right-Thru*	*Left-Thru*	*Thru*	*Lf-Th-Rt*	*Thru*	*Right-Thru*	*Left-Thru*	*Thru*	*Lf-Th-Rt*
45	55	14	15	18	16	19	39	45	10

Meeting Minutes
Initial Concept Team Meeting
SR 5 Fm Blue Ridge, GA to Copperhill, TN
Thursday, September 30, 2010

NH000-0057-01(010) & NH000-0057-01(011)
P.I. No. 621340 & 620490
Fannin County, Georgia & Polk County, Tennessee

I. Introductions

An initial concept team meeting was held for the subject project on September 30, 2010 in the GDOT District 6 office conference room. An agenda was provided to all attendees. There was a conference line provided. Introductions were made. The sign-up sheet is attached.

II. Purpose of Meeting

The purpose of the initial concept meeting is to organize the Department's resources and identify the team players, better understand the project corridor, better plan the concept, better understand the environmental scope, determine the anticipated public involvement approach, identify information that is available, define information that is needed to develop the concept, and review the project schedule.

III. Discussion Items:

- Project Overview/History

This project is a concept report to evaluate potential improvements to SR 5 from the intersection with SR 515 in Blue Ridge, Georgia to SR 68 in Copperhill, Tennessee. The existing roadway is a two-lane rural section of approximately 13 miles that passes through McCaysville, Georgia. It crosses over the Ocoee River in McCaysville. After the crossing of the river, SR 5 ends at the intersection of SR 60 (Toccoa Street). Heading west, SR 60 becomes SR 68 (Ocoee Street) when it crosses the Tennessee state boundary.

The proposed typical section and alignment are undetermined at this time. The concept development will evaluate a widening of the existing alignment, a new location alignment and combinations of both through the project corridor.

- Need and Purpose/Logical Termini

  The need and purpose was provided by GDOT on May 5, 2010. It states:

  > *"The primary purpose of the proposed project is to provide additional capacity for existing and future travel demand and to reduce crash frequency and severity along SR 5. The high traffic volumes will result in the roadway functioning at an unacceptable Level of Service."*

The logical termini is defined as the intersection with SR 515 in the south and the four-lane section of SR 68 in the north.

- Review alternates considered to date
  GDOT previously studied this corridor in 2004/2005. Alternates included widening of SR 5 from SR 515 to CR 138 with a bypass west of McCaysville from CR 138 to SR 68 in Tennessee and a new location alignment from SR 515 to CR 138. The new location alignment runs east of SR 5. These alignments will be considered during the concept development along with other potential alignments.

- Preliminary design traffic
  Since the original traffic volumes was so old, new traffic counts would be taken in order to prepare updated Design Traffic. Traffic counts would be taken throughout the corridor including counts in McCaysville and Copperhill to better determine the need for a bypass.

- Safety concerns (accident data)
  The most recent three years of crash, injury, and fatality data along the project corridor would be collected and analyzed.

- Maintenance problems, including drainage and pavement problems
  GDOT noted that this corridor will most likely be repaved prior to construction of any improvements that are a result of this project. A repaving project has not been scheduled at this time.

- Proposed Design Criteria
  SR 5 is currently posted 55 mph for a majority of the length of the project with a few areas 45 mph or less. Both the proposed design speed and the typical section are not yet determined. It was noted that the existing horizontal alignment and vertical profile does not meet current AASHTO guidelines for 55 mph. It was noted during the discussion that a design speed of 65 mph should be considered during the concept development.

- General location and size of utilities
  Cable – BalsamWest FiberNET
  Electric - Tri-State EMC
  Telephone - AT&T
  Water – City of Blue Ridge, City of McCaysville
  Sewer – City of McCaysville
  Natural Gas – there is no natural gas along this corridor. The natural gas line stops in Elijay.

- Proximity to railroads and railroad right-of-ways
  There is a rail line in Copperhill between SR 68 and the Ocoee River. The single line enters a railyard where there are up to 10 parallel tracks at this site.

  Going east from Copperhill, it runs on the north side of the Toccoa River and then where the river heads to the south, it crosses to the west side of the river. The railroad crosses SR 515 approximately 1000 feet to the east of the SR 5/SR 515 intersection in Blue Ridge. Going west from Copperhill, one track breaks off to the north where SR 68 turns to the north and then enters

the Copperhill mining facility. The other tracks continue west and merge into one track. This track runs on the north side of the Ocoee River.

The tracks are active. Daily trips are made by the Blue Ridge Scenic Railway from Blue Ridge to Copperhill.

- Existing right of way
  The existing right-of-way along SR 5 is approximately 100 feet. There are locations where the width varies.

- Existing structures and their condition
  There are two existing bridges in McCaysville. One bridge is on SR 5 (concrete, two-lanes wide with sidewalks) and the other bridge is one block to the west on Grand Street (steel, two-lanes wide). Both bridges cross the Toccoa River. There are a number of stream crossings along the project corridor.

- Environmental concerns
  - *History- There are numerous historic structures and farmsteads along the existing corridor, that will more than likely lead to a Section 4(f) evaluation. A Phase 1 History Survey will be prepared for GDOT/GASHPO and a separate survey will be prepared for TNSHPO. Both surveys will be submitted to each agency.*
  - *Archaeology- There is potential for archaeological remains along the river. A database review will be included in the Environmental screening*
  - *Wetlands, including PARs- There are numerous jurisdictional areas along the existing corridor. A Phase 1 Ecology Report will be produced and submitted to GDOT for approval. Based on initial inspections, a Section 404 Individual Permit will most likely be necessary. Therefore a PAR has been included and will be submitted to GDOT for review and approval*
  - *Endangered species- Any potential habitat for protected species will be documented in the Phase 1 Ecology Report and the environmental screening.*
  - *Soils/Erosion control- Areas of potential erosion will be reviewed in existing database searches and documented in the environmental screening*
  - *Air Quality- based on traffic data, information on air quality will be included in the environmental screening report*
  - *Noise -based on traffic data, information on noise will be included in the environmental screening report*
  - *Parks and recreation- there is one park near the existing corridor- the park will be noted in the screening report as a potential Section 4(f) resource*
  - Other

Include Fannin County Parks and Recreation – there is a county park off of Tom Boyd Road.

- Modal elements to be considered and accommodated
  Other modes of transit along the corridor will be considered during the concept development to determine if appropriate for this corridor. The city of Blue Ridge has a public transit system.

- Staging and traffic control
  Appropriate staging will be planned during the preliminary engineering phase to maintain traffic along the corridor during construction.

- Geotechnical concerns – proximity to copper mines
  Geotechnical studies will be conducted during the preliminary engineering phase.

- Coordination with other DOT and local projects
  Other DOT and local projects identified will be coordinated with the development of the concept. The addition of a signal at the intersection of SR 5 and Tom Boyd Road is being evaluated.

- Desired coordination with citizens groups, local governments, and elected officials
  Stakeholder meetings will be conducted during the concept development to gather input from local groups.

- Possible permits required
  As noted in the environmental discussion, permits required may include a stream buffer variance and Section 404 IP in Georgia and a Section 404 IP, Aquatic Resources Alteration Permit (ARAP) and TVA in Tennessee.

- Opportunities to accommodate other modes of traffic
  See discussion under 'Modal elements to be considered and accommodated'.

IV. Other Comments

V. Schedule

The concept phase has a one year timeline with completion scheduled for August 2011. A public information meeting will be held in 2011. Right-of-Way funding is scheduled for Fiscal Year 2016.

VI. Assignments

Location _GDOT District 6 Office

Date: September 30, 2010

Sign-In Sheet

Initial Concept Team Meeting
SR 5 Fm Blue Ridge, GA to Copperhill, TN
NH000-0057-01(010) & NH000-0057-01(011)
P.I. Nos: 621340 & 620490

	Name	Agency/Firm	Phone Number	Email
1	Marie Woody	Fannin County	706-258-5170	mwoody@fanninco untyga.org
2	BRIAN ISELIN	JACOBS	678·333·0637	brian.iselin@jacobs.com
3	PAM DIGSBY	DOT - R/W	7703873658	pdigsby@dot.ga.gov
4	Jennifer Deems	DOT-Utilities	770-387-3616	jdeems@dot.ga.gov
5	Stanley McCarley	D6 Traffic Ops	770-387-4813	STMccarley " " " "
6	JEFF POWELL	D6 LOCATION	770-387-3992	JPOWELL@ " " " "
7	RYAN TRUCK	Jacobs	678-333-0628	ryan.trick@jacobs.com
8	Wayne Mote	JACOBS	770-235-7411	wayne.mote@jacobs.com
9	Pat Smeaton	Jacobs	678-333-0450	pat.smeaton@jacobs.com
10	Lynette Baker	Jacobs	678.333.0489	Lynette.Baker@jacobs.com
11	SAM WHEELER	D.O.T. AREA 2	706 635 5551	swheeler@dot.ga.gov
12	Wesley King	GDOT Area 2	706-635-5551	wking@dot.ga.gov
13	Steve Carter	GDOT Engineering Services	404-631-1771	scarter@dot.ga.gov
14	JONATHAN COX	GDOT OES	4)631-1197	jocox@dot.ga.gov
15	Funmi Adesesan	GDOT OES	4)631-1190	oadesesan@dot.ga.gov
16	LOREN BARTLETT	GDOT OFFICE OF UTILITIES	4)631-1370	lbartlett@dot.ga.gov
17	Benny C Crawford	TDS Telecom	706-632-6666	benny.crawford@tdstelecom.com
18	KEN WERHO	GDOT-TO-TMC	4046358144	KWERHO@DOT.GA.GOV
19	LAMY CHANTHAVONG	GDOT	404-505-4981	Lchanthavong@DOT.GA.GOV
20	KEITH POSEY	GDOT-Design Policy + Support	404 699-4463	Kposey@dot.ga.gov
21	GREG HOOD	GDOT Dist 6 DPPE	770 387 3654	GHood@DOT.GA.US
22				

Location _GDOT District 6 Office

Date: September 30, 2010

	Name	Agency/Firm	Phone Number	Email
23	Kimberly Nesbitt	GDOT	(4) 631-1575	kcnesbitt@dot.ga.us
24	Stacy Chastain	TSEMC	706 492-3251	schastain@tsemc.net
25	Terry Arp			tarp " "
26	Tom Ledford			tledford " "
27	Todd Taylor			ttaylor " "
28	Keith Thomas			kthomas " "
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JACOBS

Subject	**MINUTES - Concept Team Meeting**		
Project	SR 5 / McCaysville Truck Bypass	**Project No.**	PI 621340 and PI 620490
Location	GDOT District 6	**Date/Time**	September 16, 2016
Participants	See Sign-In Sheet		

Item	
Opening	• Introductions • GDOT Overview of Project – Nicole Law o Nicole Law (GDOT) stated the project was federally funded when previously worked on in 2010/2011; project is now state-funded o GDOT will build and fund the portion of the project in Tennessee. GDOT will coordinate construction, right-of-way, and design with TDOT.GDOT will reimburse TDOT for the right of way funds needed to acquire property within the state of Tennessee. o Nicole gave a brief overview of the project schedule: <u>PI 621340</u> ROW Authorization – June 2017 Let – September 2019 <u>PI 620490</u> ROW Authorization – September 2017 Let – June 2019 • History of Project Design Activities – Ryan Triick o Ryan Triick (Jacobs) gave a brief overview of key project activities that have occurred prior to this concept team meeting. He stated an Initial Concept Team Meeting (ICTM) took place in September 30, 2010. A PIOH was held was on November 17,2011. o Ryan discussed the project limits, stating the 621340 begins just north of the intersection of SR 5 and SR 515 in Blue Ridge, GA. He said the current typical section for 621340 is a five (5)-lane section that will be reduced to a three (3)-lane section based on traffic analysis. Ryan stated Design Variances and/or Design Exceptions may be needed for horizontal and/or vertical curves on the existing alignment. o Ryan said PI 620490 has been renamed from the “McCaysville Bypass” to the “McCaysville Truck Bypass” to align with the need and purpose of the project. PI 620490 proposes to construct a “Super two (2)-lane”, four (4)-ft flush median roadway to the west of McCaysville, but will be reevaluated with coordination from TDOT and comments from the Value Engineering study. o Ryan state preliminary bridge layouts propose four (4) bridges on PI 620490:

	▪ Bridge 1 – over existing Epworth Drive ▪ Bridge 2 – over Fighting Town Creek ▪ Bridge 3 – over access drive ▪ Bridge 4 – over Ocoee River ▪ Several of the existing bridge culverts would be evaluated to determine if an extension, re-built, or a bridge would be needed. o Alignment Analysis – Multiple alignments have been evaluated over the years that have been compared using an analysis of both costs and impacts to homes, businesses, ecological and cultural resources.
Concept Report	• Project Justification o Will be reviewed and updated, if needed o Identification of SR 5 Bypass as a truck route to be explained in the Project Justiciation Statement • Traffic o Ryan stated GDOT had traffic counts from 2012 which were subsequently updated in 2015. He stated design year traffic ADT is approximately 22,500 for SR 5. o Ryan stated the existing typical section is a two (2)-lane road with no median, and narrow shoulders. The proposed "Super Two (2)-Lane" section has not been finalized, the recent VE Study presented the option of removing the four (4) foot flush median. o Ryan stated a complete streets component is not anticipated for the project. No bike lane is proposed on new rural typical section. Ryan stated in previous evaluations of this corridor, there is no bike route along the corridor. This will be verified with current information. o Ryan stated a pavement evaluation will be performed to reveal the extent to which existing pavement can be retained. o Ryan stated roundabout feasibility studies will be included in this project. • Bridges o Lionel Alexander (Jacobs) gave a brief overview of the proposed bridges along the corridor. He stated the preliminary bridge layouts were drawn using GIS contour data. o Lionel discussed Bridge 1 over Old Epworth Drive. He said a single span bridge with MSE walls at the abutments was initially considered. The recent VE study suggested considering a three (3)-span bridge with slope paving due to the high grade difference between Old Epworth Drive and the McCaysville Truck Bypass. o Lionel discussed Bridges 2 and 3 over Fightingtown Creek and the nearby access drive. He said currently these crossing are proposed as two separate bridges. The recent VE study suggested considering 1) combining them into a single bridge or 2) removing Bridge 3 and re-aligning the access road to tie directly into the McCaysville Truck Bypass. Lionel anticipated that the geometry of the Bridge 2 crossing

will be controlled by the hydraulics of Fightingtown Creek.

- Lionel presented Bridge 4 over the Ocoee River. He stated Bridge 4 is approximately 800 feet long and includes spans over the Ocoee River and adjacent railroad. He added the truck bypass alignment reduces impacts to the mountain tops in the vicinity to preserve scenery.

- Typical Sections

  Widening
  - 5-lane with 14-foot flush median
  - 3-lane with 14-foot flush median

  Bypass
  - 2-lane with 4-foot flush median (Super 2-Lane)

- Design Exceptions/Design Variances
  - Design exceptions are anticipated for the horizontal and vertical geometry where needed to maintain the existing alignment, reduce impacts to the adjacent properties and avoid staging detours.

- VE Study
  - Ryan stated a VE Study was held August 29th to September 1st.
  - Jacobs currently addressing comments received from VE Team.

- Railroad
  - Tim Andrews (Hiwassee River Railroad) stated the railroad along the Ocoee River is managed & leased by the Hiawassee River Railroad and owned by Tennessee Overhill Heritage Association.
  - Jacobs provided conceptual bridge layout sheets to Tim Andrews for their reference.
  - Tim said the rail line is currently used for both freight and passenger.
  - Future contact can go through Tim Andrews (Hiwassee River Railroad), Jay Lanius (TDOT Statewide Railroad Coordinator).

- Utilities
  - It is important to get SUE activities started on this project right away;
  - TDOT to identify the utility owners within the project corridor and provide to Jacobs.
  - Initial steps in the SUE process:
    - Jacobs will complete SUE
    - Jacobs will submit the SUE database to State SUE Coordination
    - GDOT will send the UPRN1A Letter to utility owners
  - Jacobs will include TDOT as appropriate in the ‘Coordination,

Activities, Responsibilities and Costs' table in the Concept Report.
  - TDOT sometimes includes utility relocations in the construction bid; GDOT typically doesn't do this; TDOT agreed to mirror GDOT in this approach.
  - TDOT advised GDOT and Jacobs future contact for pre-construction utility coordination work can go through Steve Langford(TDOT)

- Right of Way
  - GDOT OPD and Jacobs have met with the GDOT ROW Office a few weeks prior to discuss their schedule and for them to develop their acquisition plan.
  - TDOT to acquire the right of way in Tennessee and be reimbursed by GDOT; It is important that GDOT and TDOT coordinate a funding agreement prior to ROW Authorization.
  - Right of Way in Tennessee will be less than 50 parcels; Jacobs will provide TDOT the number of impacted parcels and the percent of ROW costs from PI 620490 located within Tennessee.
  - Project goes through the Cherokee National Forest Declaration Boundary – Jonathan Cox (Jacobs) has initiated contact with them.

- Context Sensitive Solutions
  - Ryan stated a context sensitive approach has been part of this project from the initial scoping activities; he added stakeholder meetings were held in 2011 and minutes are included in the Concept Report.
  - TDOT has a specific team focused on Context Sensitive Design.
  - Jacobs requested any examples from TDOT for reference.

- Environmental Requirements and Permits
  - Jonathan Cox (Jacobs) discussed the overview of the environmental requirements and permitting. He stated, under original Federal Funding, an EA/FONSI was required – this is no longer the case since the project is now state funded. He added under new Georgia legislation the project is exempt from GEPA since both projects are less $100 Million (both separately and if combined).
  - Jonathan added that the USACE will be involved in this project due to stream impacts. Stacy Stewart (Jacobs) stated coordination with USACE has begun. She stated preliminary field investigation indicates the presence of approximately eighty-five (85) jurisdictional resources requiring buffers. She anticipates an Individual Permit (IP).
  - There will be separate permits for Georgia and Tennessee.
  - Stacy said aquatic and bat surveys are upcoming.
  - TN doesn't have available mitigation credits; any on-project mitigation would help the schedule; PIOH scheduled for October 27th; invitation to be sent soon; TDOT staff will be included and encouraged to attend;
  - Additional Items:
    - Tennessee Department of Environmental Conservation

	(TDEC) – will coordinate with this agency ▪ Will coordinate with TVA to determine ownership/regulation of Ocoee River, Fightingtown Creek, and other potential sites and resources. • PAR o A PAR is required and will be conducted when environmental studies have completed their field studies and reports.
General Discussion	• MS4 not required for this project; important to still consider mitigating the impacts of stormwater runoff • Existing springs along the corridor are a concern. It's the major source of water for many of the residents. • Process has begun on how to address the hazmat areas in Copperhill and around the rail yard. • It was suggested to consider letting the two projects as one. This is also a comment noted in the VE Study. The project team will do what they can to keep the projects on the same timeline to allow this option at letting. • There is a bi-weekly project meeting with GDOT OES and Jacobs. TDOT expressed interest in participating. • TDOT suggested to document letters of support received from area stakeholders. GDOT Office of Planning said they would send available letters from throughout project development to Nicole for inclusion in the Concept Report. • Geotech o There is acid producing rock in the vicinity of the railroad and copper basin mine property; any excavation in these areas to take this into consideration; TDOT uses SP 107L and will provide a copy for reference and use on this project; o There is a Golder Report that references this type of rock as well – TDOT to provide a copy o In the Concept Report under 'Feasible Pavement Alternatives', change to 'HMA & PCC' o A Pavement Type Study to be completed on this project • GDOT Engineering Services recommends that the VE Study process be completed prior to the approval of the Concept Report to avoid any revisions to the Concept Report that may come from the VE Study • TDOT has used a Super 2-Lane in the past, but it has a typical section that differs than the one shown in this project. TDOT to provide a copy of their Super 2-Lane typical section. Jacobs noted that the VE Study held a couple weeks ago mentioned removal of the 4-foot flush median. This comment is under consideration at this time. • Design criteria o GDOT EngineeringServices noted that a flush median on an arterial will require a design variance

Action Items	• GDOT
	  o Office of Planning to provide letters of project support
	• Jacobs
	  o Send TDOT project sheets for Utility Coordination – *completed at Concept Team Meeting*
	  o Right of Way – Provide number of parcels and anticipated budget to Jackie Wolfe (TDOT) so they can plan acquisition activities and identify funding
	  o Verify that Alternate A in the Concept Report references the current alignment
	  o Contact TDOT Structures Office and share the conceptual layout for the Ocoee River.
	  o GDOT/Jacobs to include TDOT in bi-weekly conference call
	  o Concept Report Updates
	  ▪ Add TDOT to appropriate Coordination, Activities, Responsibilities and Costs' table in the Concept Report
	  ▪ Change feasible pavement type to "HMA & PCC"
	• TDOT
	  o Identify the utility owners within the project corridor and provide to Jacobs
	  o Provide examples for Context Sensitive Design from TDOT for reference.
	  o Send GDOT and Jacobs a copy of the TDOT Super 2-Lane typical section.

MEETING SIGN-IN SHEET

Project:	PI 621340- & 620490- SR 5 McCaysville in Fannin/Polk County	**Meeting Date:**	September 16, 2016
Facilitator:	Nicole Law-OPD PM, Ryan Triick-Jacobs PM	**Place/Room:**	D6-Cartersville Office / Large Conference Rm

Name	Company	Phone	E-Mail
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Jackie Wolfe	TDOT Region 2 ROW	423-634-7555	Jackie.Wolfe@tn.gov
SCOTT MEDLIN	TDOT Reg. 2 ENVIRONMENTAL TECH OFFICE	423-510-1118	Scott.Medlin@tn.gov
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Stacy Stewart	Jacobs	478-972-9088	Stacy.Stewart2@jacobs.com
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C. RYAN WALKER	GDOT	4-631-1793	CRWalker@dot.ga.gov
Carla Benton-Hacks	GDOT OES	404-631-1415	CBenton-Hacks@dot.ga.gov

MEETING SIGN-IN SHEET

Project:	PI 621340- & 620490- SR 5 McCaysville in Fannin/Polk County	**Meeting Date:**	September 16, 2016
Facilitator:	Nicole Law-OPD PM, Ryan Triick-Jacobs PM	**Place/Room:**	D6-Cartersville Office / Large Conference Rm

Name	Company	Phone	E-Mail
MATT SANDERS	GDOT ENGINEERING SERVICES	4) 631-1752	msanders@dot.ga.gov
Erik Rohde	GDOT Engineering Services	404 631 1611	erohde@dot.ga.gov
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Gretel Sims	GDOT, OPD	(4)631-1693	gsims@dot.ga.gov
Sharilyn Meyers	GDOT - ecology	4)(63)- 1594	smeyers@dot.ga.gov
Rachel Perrine	GDOT - Archaeology	(404)631-1072	rperrine@dot.ga.gov.
Jonathan Cox	JACOBS	4)978-7516	jonathan.cox@Jacobs.com
PATRICK CAPASSE	JACOBS	4)978-7510	PATRICK.CAPASSE@JACOBS.COM
Tim Andrews	Hiwassee River RR	423-413-4331	tandrews@tvrail.com
Nicole Law	GDOT - OPD	4) 631-1723	nlaw@dot.ga.gov

SR 5/Blue Ridge Drive from SR 515/Appalachian Highway to SR 68/Ocoee Street and McCaysville Bypass NR CR 138

GDOT Project NH000-0057-01(010) & NH000-0057-01(011)
PI. Nos. 621340 & 620490

Stakeholder Involvement Overview

Stakeholder Meeting #1
Location: Fannin County Courthouse
Date/Time: February 9th, 2011: 10:00AM – 11:30AM
Notable Stakeholder Attendees:

Bill Simonds:	Fannin County Commission Chairman
Cecil Arp:	City of Copper Hill Mayor
Tommy Quintrell:	City of McCaysville Council Member
Donna Whitener:	City of Blue Ridge Mayor
Multiple Others:	Please see sign in sheet

Stakeholder Meeting #2
Location: Fannin County Chamber of Commerce
Date/Time: February 9th, 2011: 12:00PM – 1:00PM
Notable Stakeholder Attendees

Tim Mercier:	Mercier Orchards
Richard York:	Bank of Blue Ridge
C.J. Green:	The Terminator
Cynthia Panter:	Fannin County Board of Education
Lynda Thompson:	L & L Beanery
Paul Gribble:	Georgia Mtn. Cabin Rentals
Elaine Dilbeck:	Fannin County Chamber of Commerce
Multiple Others:	Please see sign in sheet

Stakeholder Meeting #3
Location: Fannin County Chamber of Commerce
Date/Time: February 9th, 2011: 1:30PM – 2:30PM
Stakeholder Attendees

Adam Davenport:	Tri-City Business Association
Stephanie Scearce:	Fannin County Development Authority
Melissa Hamby:	Fannin County Development Authority

Stakeholder Meeting #4
Location: Copper Hill City Hall
Date/Time: February 15th, 2011: 12:00PM – 1:30PM
Notable Stakeholder Attendees

Cecil Arp:	City of Copper Hill Mayor
Daren Waters:	Polk County, TN Commissioner
Randy Collins:	Polk County, TN Commissioner

Stakeholder Involvement Overview

Hoyt Firestone:	Polk County Executive
Adam Davenport:	Tri-City Business Association
Herb Hood:	Tri-City Business Association
Jan Beck:	Polk County Chamber of Commerce
Multiple Others:	Please see sign in sheet

Stakeholder Meeting #5
Location: Fannin County Regional Hospital
Date/Time: February 15th, 2011: 3:00PM – 3:30PM
Stakeholder Attendees

Sara Waterhouse:	Fannin Hospital – Dir. of Practice Mngt and Business Development
Susan Kiker:	Fannin Hospital – Marketing

Comments from Stakeholders Regarding Project Need and Purpose

- Safety
  - There are multiple intersections which experience a high number of accidents
  - Emergency vehicles are constrained by congestion on SR 5, sometimes travel no faster with lights turned on
  - Improved access and safety at West Fannin Elementary
  - High school students utilize SR 5 to get to/from Blue Ridge
- Truck Traffic
  - Heavy truck traffic through McCaysville and Copper Hill
  - Trucks cause damage traversing Copper Hill
- Congestion/Access
  - Congestion significantly reduces mobility along SR 5
  - SR 515 provides great north-south access; we need improved access from SR 515 along SR 5 and across the Tennessee state line
  - Local drivers utilize alternate routes to avoid SR 5
  - Tourism (rafters, train) brings seasonal traffic and congestion
  - Access to Fannin County Regional Hospital is essential
- Growth in Area
  - This area is expected to continue to grow
  - Improved access to the area is essential for growth
- Improved connection between Tennessee and Georgia could serve as a scenic byway alternative to I-75

Stakeholder Involvement Overview

Concerns/Questions from Stakeholders

- Why is this project different this time? This has been talked about for many years.
- When will construction start? How long to construct?
- Specific property impacts. How is ROW acquired?
- Width of road and right-of-way
- Where exactly would the bypass start and end? Will it be 2 or 4-lanes?
- How is TNDOT involved?
- Who is responsible for the bridge across the Toccoa River?
- Economic Impacts/Benefits to McCaysville and Copper Hill
    - Some limited concern about local businesses
    - SR 515 around Blue Ridge actually brought additional development – economic boost

JACOBS

Meeting Notes

Meeting Location: Fannin County Courthouse, Blue Ridge, Ga.

Client: Georgia Department of Transportation (GDOT)

Meeting Date/Time: February 9, 2011/ 10:00 – 11:30 p.m.

Project: SR 5 & McCaysville Bypass

Subject: SR 5/Blue Ridge Drive from SR 515/Appalachian Highway to SR 68/Ocoee Street McCaysville Bypass NR CR 138

Project No. 621340 & 620490

Participants: See sign in sheet.

Notes Prepared By: Jacobs

Notes:

Introduction:
Kim Nesbitt (GDOT) – provided overview of project history and current status within GDOT. She stated that this was an informal meeting to gather information from stakeholders.

Funding:
2012 – PE Funding
2014 / 2015 –R/W Funding- 621340

Brief description:

Patrick Smeeton (Jacobs) discussed the federal involvement and the need for environmental studies, the involvement of the Federal Highway Administration and the need for GDOT, FHWA and consultants to understand the local support or non-support of the project. He then asked for an informal poll of the number of people in the room who at this time think that this is a needed project for the area. A large percentage of the room voted in favor by a show of hands. The individuals willing to share why they are not in support were concerned about the project taking their property. The project team made it clear that at this time the project is in the planning stage and no decisions had been made on the alignment.

The purpose of this project is to design several alternates for SR 5 from Blue Ridge to Copperhill which is situated near the border of the State of Tennessee, in the Blue Ridge Mountains area near the historic Copper Hills mining fields.

The project scope is to develop a concept report with several alternatives for 13 miles of roadway, which will include one or two bridges on a bypass near the Tennessee border.

The following questions and points of discussion were raised at the meeting with the Stakeholders:

Question: Are we talking about a widening or a new location alternative?
Response: Both – widening from SR 515 to south of McCaysville and then a bypass around McCaysville – cannot go through because of the number of impacts. In addition along the widening, there may be some new location to get around certain locations – based on a balance of project need and impacts. GDOT will try to utilize the existing alignment as much as possible and look at new location if too many impacts.

Question: Is there any coordination with Tennessee agencies?

Response: Tennessee agencies including TNDOT and TNSHPO have been contacted and will be involved in the development of the plans. Tennessee does not have funding for this project, they are in support but cannot help pay for the needed right-of-way acquisition. So Georgia and Tennessee will have to come up with an agreement.

Statement: Congestion is a problem along the corridor. There are numerous congestion points along SR 5.

Question: What year defines historic?
Response: A building/structure can be considered historic once it reaches 50 years of age. As the design process will take a couple of years to complete, all structures built in 1966 or earlier will be considered.

Interesting note: The steel bridge was moved to its current location when Lake Blue Ridge was built – no bridge in McCaysville prior; only a ferry.

Question: Will the bypass tie to SR 68 or SR 64?
Response: At this time all options are open, but c*onceptually looking at a bypass, west of McCaysville, that will connect to SR 68. There appear to be more constraints on the eastern side. The goal is to improve the link from Blue Ridge to Tennessee.*

Statement: Need east/west corridor. SR 515 is good north/south route.

Question: Will the project connect to Spur 60?
Response: Regional traffic patterns and demands will be considered, but actual alignment is not planned to connect to Spur 60 at this time.

Statement: My house is on 10 acres and the logs used to build my house were hand hewn over 150 years ago and were brought here from Kentucky. I would hate to see the project take my property.
Response: The historian will be notified of its location so it can be evaluated for historic integrity?

Statement: To build a project through the type of terrain you have is a challenge. There are significant constraints on the west crossing the river and railroad side of SR 5 including steep slopes, multiple railroad tracks and possibly two stream crossings.
Response: Where and how it looks will depend on traffic counts, traffic projections, terrain, historic properties, threatened and endangered species, streams/rivers, etc.

Statement: Some locations where traffic congestion occurs are at Tom Boyd Road, Mercier Orchards, West Fannin Regional Hospital and W. Fannin Elementary School. There are plans for improvements at some of these locations.

Question: What about the boundary issue between Georgia and Tennessee?
Response: The current legal boundary will be used for this project.
According to residents, GDOT had project programmed, but funding disappeared around 1992.

Question: Will these be 2 different projects?
Response: Yes. One project begins on SR 5 just north of SR 515 and is 5-7 miles long. The second project is a bypass of McCaysville/Copperhill. For the purposes of environmental studies they are grouped together.

Statement: The bypass would cut down traffic time significantly especially between the nearby hospitals.

Question: The residents have been told that SR 5 from McCaysville to Blue Ridge is the heaviest 2-lane traffic in state.
Response: With the hospital south of McCaysville, ambulances have to go thru Copper Basin in route and can be delayed due to congestion.

Question: Will this be a 2 lane or 4 lane roadway?
Response: It has not been decided at this time. It will depend on traffic studies, public input, etc.
There is a 4-lane to highway 68 in Tennessee, it seems to defeat the purpose if you have 4 lanes to McCaysville and not have 4 lanes on the bypass.

Question: Tennessee uses 'Super 2 lanes' often. Will it be considered for this corridor?
Response: Various types of typicals will be considered for this corridor.

GDOT comment: In GRIP corridor projects in the past, some downtowns have fought projects because of fears it will dry up. What are thoughts from this audience?
Comments from Audience: If the downtowns market it right, they should be ok. There needs to be some changes in downtown McCaysville. The fact that traffic is moving out, could offer opportunities. They have the Scenic Train running during peak season. Shopping in McCaysville has declined since the 1960s. It has somewhat revived since the trains began coming in. If you make it more pedestrian friendly, it could be more helpful. The rafting industry in McCaysville and Copper Hill would be helped by the bypass making it safer to access. 18-wheelers are a major safety hazard on SR 5.

Statement: Corridor traffic demands include Blue Ridge Scenic Railway, tourism, rafting and commuter traffic.

Question: A concept for a bypass was presented to the public around 1988. Will this be used?
Response: The current concept will evaluate the corridor based on current information, but previous studies/concepts will be used as a reference as well.

Statement: Most business prefers to move to a 4-lane roadway.
Response: The number of lanes will be determined by traffic projections.

Question: How wide would SR 5 be widened to? What are the potential ROW needs?
Response: It will depend on the terrain, medians, slopes, and individual property owners but the ROW for a project like this could range from 150-350 feet for ROW.

Question: What will the design speed be?
Response: The design speed is still undecided. Note that there is a difference between design speed and posted speed. A road could have a posted speed of 55 mph, but be designed for 60 mph or 65 mph.

Question: Is there a way to project business loss by building as bypass?
Response: The bypass would provide congestion relief as it would remove through traffic.

GDOT study regarding bypass effects suggested that there were effects to fast food restaurants and gas stations, but not much of a negative effect to other businesses.

Statement from Audience: The 4-lane SR 515 did not hurt Blue Ridge; it improved the town by being constructed.

The Question and Answer session ended with an opportunity for individuals to talk to GDOT and consultants one-on-one while looking at maps. The following points of interest were mentioned to GDOT and Jacobs representatives during this time:

- *Concerned about tourism growth with congestion*
- *Ducktown residents want project*
- *Concerned about river access could occur in another location.*
- *Trucks hit street banners and signs on side of road.*
- *Signals - will study and add where warranted by GDOT guidelines during project design phase*
- *SR 515 – one advantage for Blue Ridge is visibility from SR 515.*
- *White Water Center – 5 miles past Ducktown.*
- *Development Study – done by University of Tennessee about three years ago called "River Walk".*

JACOBS

Meeting Notes

Meeting Location: Fannin County Chamber of Commerce

Client: Georgia Department of Transportation (GDOT)

Meeting Date/Time: February 9, 2011/ 12:00 – 1:30 p.m.

Project: SR 5 & McCaysville Bypass

Subject: SR 5/Blue Ridge Drive from SR 515/Appalachian Highway to SR 68/Ocoee Street McCaysville Bypass NR CR 138

Project No. 621340 & 620490

Participants: See sign in sheet.

Notes Prepared By: Jacobs

Notes:

Introduction:
Kim Nesbitt – provided overview of project history and current status within GDOT. She stated that this was an informal meeting to gather information from stakeholders.

Brief description:

Patrick Smeeton (Jacobs) discussed the federal involvement and the need for environmental studies, the involvement of the Federal Highway Administration and the need for GDOT, FHWA and consultants to understand the local support or non-support of the project. He then asked for an informal poll of the number of people in the room who at this time think that this is a needed project for the area. A large percentage of the room voted in favor by a show of hands. The individuals willing to share why they are not in support were concerned about the project taking their property. The project team made it clear that at this time the project is in the planning stage and no decisions had been made on the alignment.

The purpose of this project is to design several alternates for SR 5 from Blue Ridge to Copperhill which is situated near the border of the State of Tennessee, in the Blue Ridge Mountains area near the historic Copper Hills mining fields.

The project scope is to develop a concept report with several alternatives for 13 miles of roadway, which will include one or two bridges on a bypass near the Tennessee border.

The following questions and points of discussion were raised at the meeting with the Stakeholders:

Question: Are you just planning on widening SR 5?
Response: There is a lot to consider including environmental, social, cultural, and economic impacts as well as terrain and the results of the studies. *Various alignments and road sections will be evaluated including widening of the existing alignment and new location as well.*

Statement: in regards to safety, when emergency vehicles use their lights, it may take longer to get through SR 5 because vehicles cannot move over with limited pull-offs and narrow or non-existent shoulders. Also, there are a lot of accidents on the current road.

Statement: When SR 515 was built around Blue Ridge, it gave the community an economic boost. That same thing could happen for McCaysville.

Statement: If SR 5 is built, it could be a scenic byway, offering an alternative to I-75.

Statement: If you widen along SR 5, it would better than new alignments because utilities are already in place for future development.

Statement: West Fannin Elementary School is within the corridor and safety is important. Also there are many young drivers as high school students who drive commute along SR 5 to and from Blue Ridge.

Question: How will you determine the amount of ROW needed?
Response: Right of Way requirements are dependent on the topography and design speed as well as the typical section of the road (2-lane, 4-lane, median width, etc.) This project could have a Right of Way width between 150-350 feet. GDOT prefers using the existing alignment and will consider the use of context sensitive design which could include a different median width or road width.

Question: Will it be a 4-lane road for sure?
Response: Congestion, safety, traffic counts and projections will all be factored when determining the number of lanes.

Statement: Local residents know alternate routes so demand may not be reflected in traffic counts.

Question: How long will it take to build?
Response: The earliest date to start acquiring right of way would be July 1, 2013 and would take 2 to 3 years minimum to acquire the property. The bid and construction could take another several years. Estimate would be 2018-2020 before open to traffic on the southern end.

Question: Is this a state or federal project?
Response: This is a state project using federal matching money.

Question from GDOT: Do you think the majority of people would support or be against this project?
Response: On a whole you should find support.

Statement: Our area has tremendous water resources. This allows for growth opportunities. New area to develop in the future if appropriate infrastructure is in place.

GDOT Statement: A website will be created to allow transparency and to offer a way to communicate with both GDOT and the design consultants.

Question: How is property acquired for right-of-way?
Response: GDOT uses a prescribed process. Two independent assessments are done, then an offer is made to the owner. The offer will reflect fair market value and if a displacement is involved, relocation assistance will also be included. The owners have an opportunity to counter; however if negotiations fail, condemnation is the final step. GDOT does not like to condemn and will do what they can to avoid. Likewise for businesses, there will be compensation for parking loss, revenue loss, signs, etc. GDOT only uses condemnation as a last resort. They have an excellent record for low condemnation cases. Overall right-of-way acquisition is a process and can take a lot of time.

Question: When do we get to see the proposed corridor?
Response: The designers and environmental planners will work together along with GDOT to develop the corridor alternatives. A public meeting will be held in the near future to present these alternatives and gather public feedback. Then a refined alignment will be developed.

Statement: The Copper Basin region has a hospital and high school that should be included in the planning of this project.

JACOBS

Meeting Notes

Meeting Location: Fannin County Chamber of Commerce – Economic Development

Meeting Date/Time: February 9, 2011/ 1:45 – 2:30 p.m.

Subject: SR 5/Blue Ridge Drive from SR 515/Appalachian Highway to SR 68/Ocoee Street McCaysville Bypass NR CR 138

Participants: See sign in sheet.

Client: Georgia Department of Transportation (GDOT)

Project: SR 5 & McCaysville Bypass

Project No. 621340 & 620490

Notes Prepared By: Jacobs

Notes:

Introduction:
Kim Nesbitt – provided overview of project history and current status within GDOT. She stated that this was an informal meeting to gather information from stakeholders.

Brief description:

Patrick Smeeton (Jacobs) discussed the federal involvement and the need for environmental studies, the involvement of the Federal Highway Administration and the need for GDOT, FHWA and consultants to understand the local support or non-support of the project. He then asked for an informal poll of the number of people in the room who at this time think that this is a needed project for the area. A large percentage of the room voted in favor by a show of hands. The individuals willing to share why they are not in support were concerned about the project taking their property. The project team made it clear that at this time the project is in the planning stage and no decisions had been made on the alignment.

The purpose of this project is to design several alternates for SR 5 from Blue Ridge to Copperhill which is situated near the border of the State of Tennessee, in the Blue Ridge Mountains area near the historic Copper Hills mining fields.

The project scope is to develop a concept report with several alternatives for 13 miles of roadway, which include one or two bridges on a bypass near the Tennessee border.

Prior to the meeting, Mr. Davenport had spoken to business representatives in McCaysville, Georgia and Copperhill and Ducktown, Tennessee.

The following questions and points of discussion were raised at the meeting with the Stakeholders:

Statement: Will the river access occur in McCaysville or move to another location? This is a source of tourism and would prefer this access to remain.
Response: At this time, the river access location (along with the alignments) have not been determined.

Statement: Trucks hit street banners and signs long side streets. The side streets are not designed for tractor trailer use. Streets are narrow.

Question: Will the driveways have access?
Response: The driveways will follow department guidelines. For a limited access route, the driveways would not tie in, but for a roadway with full access the driveways could connect to the road. At this time, the type of access for this road has not been determined.

Question: Will signals be added as part of the design?
Response: Signals will be studied and added where warranted by GDOT guidelines.

Question: What is the advantage of a bridge?
Response: One advantage for a bridge is proximity and viewing from SR 515.

Question: Will the design disturb the White Water Center?
Response: The White Water Center is located on Hwy 64, 5 miles north of Ducktown. This is outside the corridor of the project.

Statement: Development study was done by University of Tennessee about three years ago called "River Walk."

Question: Will Polk County and Tennessee representatives be included in this discussion?
Response: GDOT and Jacobs will be meeting at the Copperhill City Hall with Polk County, City of McCaysville, and City of Copperhill representatives. TNDOT representatives have also been contacted and will be involved with this project as it develops.

Question: What will the typical section look like?
Response: The typical section is not determined at this time. It will be based on traffic projections, safety considerations and other factors.

Statement: A Transportation Enhancement (TE) project would be beneficial once the bypass is constructed.

Statement: Would be visually appealing to see the City of McCaysville from the bypass.

JACOBS

Meeting Notes

Meeting Location: Copper Hill City Hall

Client: Georgia Department of Transportation (GDOT)

Meeting Date/Time: February 15, 2011/ 12:00 – 1:30 p.m.

Project: SR 5 & McCaysville Bypass

Subject: SR 5/Blue Ridge Drive from SR 515/Appalachian Highway to SR 68/Ocoee Street McCaysville Bypass NR CR 138

Project No. 621340 & 620490

Participants: See sign in sheet.

Notes Prepared By: Jacobs

Notes:

Introduction:
Kim Nesbitt (GDOT) – provided overview of project history and current status within GDOT. She stated that this was an informal meeting to gather information from stakeholders.

Brief description:

The purpose of this project is to design several alternates for SR 5 from Blue Ridge to Copperhill which is situated near the border of the State of Tennessee, in the Blue Ridge Mountains area near the historic Copper Hills mining fields.

The project scope is to develop a concept report with several alternatives for 13 miles of roadway, which will include one or two bridges on a bypass near the Tennessee border.

The following questions and points of discussion were raised at the meeting with the Stakeholders;

Question: We've been hearing for years that the bypass would break off SR 5 near the water plant and then come through Staffordtown (small neighborhood in TN) and meet up with the 4-lane?
Response: There was a concept report done many years ago for this project. We are essentially starting from scratch on this project, new environmental studies, new concept, multiple alternatives are being evaluated.

Question: What's the best case for timing of this project?
Response: FY 2014 to start ROW acquisition. Kimberly added a disclaimer to the FY date stating that the entire corridor has to be fully funded to make the FY 2014 funds. Money has to be put on the bypass – it isn't currently funded. However, based on recent conversations with Todd Long, Kimberly is lobbying for the funds and the earliest date possible is FY 2014 but we still have to go through the process and we have a ways to go.

Statement: RyanTriick (Jacobs) added that there were also several critical items that will have to be completed over the next several years including Concept, Environmental, Preliminary Design and ROW.

Question: Based on the stakeholder meetings last week, it was one participants understanding that the funds were available for the southern end for FY 2014?
Response: Yes, funds are available for the southern end for FY 2014 and Kimberly is now coordinating with TN and lobbying for the bypass portion.

Question: Doesn't the alignment into TN need to be determined with Tennessee's involvement?
Response: Tennessee has been invited to all meetings and GDOT met with Tennessee DOT early on. Coordination with TDOT will continue through the concept and design phases of this project. When we present the alternatives, they will be asked again to attend.

Question: Crown Water was the original location where the bypass was to veer off SR 5. It appears that this is now impossible due to residential and commercial growth. Shall we assume 4-lanes to this point?
Response: We cannot assume anything and will study everything including the number of lanes and the possible alignments.

Question: After the location where the road begins the bypass, will be existing road into McCaysville be untouched?
Response: It cannot be widened in McCaysville, there are too many factors. Some improvements may happen, but not a widening.

Statement: If the bypass starts north of the water plant, it would take out a lot of houses.
Response: Any widening or new location will impact and displace multiple properties. The study will help to minimize displacements.

Question: Do you use Quantum? It is a program used by Tennessee DOT where they plug in the proposed routes and the program takes into account all the various potential effects and impacts. It gives a rating to each of the proposed alignments along with how many lanes, where, etc.
Follow up Question from GDOT:
Is this a license that Tennessee DOT uses?
Response: Yes, it was brought to TDOT through Planning Communities out of Raleigh, NC. A participant shared her experience as part of the Tennessee Citizens Resource Team that this kind of project has a lot of steps and procedures and it isn't just a 1, 2, 3 and build.

There are two hospitals, Copper Basin and Fannin Regional Hospitals – there are times when ambulances are delayed by the traffic on SR 5. The bypass would cut the time between the hospitals down considerably. This is the first time that money has been placed on this project (prior to now, only in concept and long range).

Question: Did GDOT initiate the letter sent to people along the corridor?
Response: My consultants did. This is the first project that GDOT sent Right of Entry letters notifying the residents of upcoming environmental field studies.

Question: Is this state or fully federally funded?
Response: It is a match project. For federal funds, the state matches a portion of those funds.

Question: If you go through a property, how do you compensate?
Response: It depends on the situation. If it is an easement for maintenance, it is considered minor and owners will be compensated based on the need. If mailboxes, fences, etc are impacted, there is a cost to cure assessment to either give the owner the cost to replace or in some cases have the contractor replace the fence or item after construction. If a home needs to be acquired, the home will be appraised

by two independent assessors and a fair market value will be offered; the owners have the right to counter. GDOT also takes into account and compensates the cost to relocate and other needs. The compensation process is line item based and depends on each individual owner and the particular need.

Question: Wouldn't it behoove GDOT to move quickly on this based on the depressed housing market?
Response: GDOT uses a conservative estimate to cover all costs regardless of the market. There are federal and state requirements in developing a roadway project that controls the overall schedule.

Question: What level of environmental documentation are you anticipating?
Response: We are working on that now. Whether it is an Environmental Assessment (EA) or an Environmental Impact Statement (EIS) will be determined through the environmental screening and then the consultants and GDOT will make a case to FHWA on the level of documentation needed.

Question: If the bypass meets up with the 4-lane in Tennessee, Fighting Creek, which is in Tennessee, would have to be bridged. Who is responsible for the bridge?
Response: Tennessee would have to maintain.

Statement: Anyway you go, you'll have to bridge Fighting Creek and it would be a long bridge based on the topography, the location of the rail yard, and streams.

Statement from GDOT: Yes, agreed it would be a long bridge; please note that we are not just looking at western bypasses, we are looking on the east side as well.

Question: How long will it be before lines will be on paper (alternative alignments to review?)
Response: We are doing preliminary environmental studies now and all the data including threatened and endangered species, history, ecology, etc. will be plugged into maps to help the designers determine the potential alternatives with the fewest impacts.

Question: Going back to funding, to clarify, both parts have to be funded for FHWA to approve the environmental? Do you have a commitment from Tennessee?
Response: Tennessee has agreed to review our documentation only.

Question: Are you surprised that no one from TNDOT attended today?
Response: No, they were involved in earlier planning for this and will attend once alternatives are being discussed.

Question: Will the bypass be limited access?
Response: We are not sure at this time, we have heard concerns about the potential impacts to the towns so we will have to determine signs, and look at future development in the area.

Question: What is the estimated cost for the bypass?
Response: We do not have a typical section determined so we do not know how much it will cost.

The meeting adjourned. Several participants stayed and had one-on-one discussion with GDOT and consultants.

- *Additional information on the Tennessee Chemical Company including the labor force, which during full operations employed 3,500 people in the 1960s, housing was provided at a low cost in small communities.*

- *The Ducktown Basin Museum was recommended as a place to review historic resources and maps.*
- *Local Tennessee cemeteries and existing communities were pointed out on the maps.*
- *At one time Copperhill was the center of commerce for the region.*
- *The plant closed in the 1980s. One industry is in currently in operation with a very small workforce producing soap.*
- *Glen Springs Holdings is working on clean-up and have plans for ecotourism.*
- *Frank Russell is recommended as a person to interview for the history of the Copperhill TN area.*

JACOBS

Meeting Notes

Meeting Location: Fannin County Regional Hospital

Client: Georgia Department of Transportation (GDOT)

Meeting Date/Time: February 15, 2011/ 3:00 – 3:30 p.m.

Project: SR 5 & McCaysville Bypass

Subject: SR 5/Blue Ridge Drive from SR 515/Appalachian Highway to SR 68/Ocoee Street McCaysville Bypass NR CR 138

Project No. 621340 & 620490

Participants: See sign in sheet.

Notes Prepared By: Jacobs

Notes:

Introduction:
Ryan Triick (Jacobs) presented a quick overview of the project and the purpose of meeting with the Fannin Regional Hospital as an important stakeholder along the corridor.

Brief description:

The purpose of this project is to design several alternates for SR 5 from Blue Ridge to Copperhill which is situated near the border of the State of Tennessee, in the Blue Ridge Mountains area near the historic Copper Hills mining fields.

The project scope is to develop a concept report with several alternatives for 13 miles of roadway, which will include one or two bridges on a bypass near the Tennessee border.

The following points of discussion were raised at the meeting with the Stakeholders;

- Additional Emergency personnel to reach out to included Lonnie Oliver and Daryl Payne.
- Access to the hospital is a key issue.
- Wrecks can shut down access to this hospital.
- Copper Basin Hospital is a critical access hospital – recommend you talk to them too.
- Life Flight is now in the community behind Tri-State industrial park. Talk to Commissioner Simonds for more information.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: P. I. No. P.I. Nos. 621340 & 620490 **OFFICE:** Environmental Services
DATE: December 12, 2011

FROM: Glenn Bowman, P.E., State Environmental Administrator
TO: Distribution Below

SUBJECT: Project NH000-0057-01(010) & NH000-0057-01(011), Fannin County, Summary of Comments Received During the Public Comment Period - Proposed State Route 5 and McCaysville Bypass Road Improvements

COMMENT TOTALS:

A total of 202 people attended the public information open house held for the subject project on November 17, 2011 at the First Baptist Church located at 104 Toccoa Street in McCaysville and Fannin County Middle School located at 4560 Old Highway 76 in Blue Ridge, Georgia.

From those attending, 50 comment forms, no letters and 11 verbal statements were received. Two attendees who wrote comments also made verbal statements, but were each counted as one comment. An additional 24 comments (including one petition with 11 signatures) were received during the ten-day comment period following the public information open house, for a total of 85 comments. They are summarized as follows:

No. Opposed	No. In Support	Uncommitted	Conditional
10	46	8	21

MAJOR CONCERNS:

The following is a summary of the major concerns offered in the comments:

1. The effect this road will have on property value is of great concern. How much ease of access will I have to my property?
2. The maps provided show neighbors homes on either side of me being removed but not my home. Is it because my home is farther from the road? Information provided shows some of my property will probably be taken to build the road. This will put the 4-lane road almost at my front door.
3. Project would impact our home and the community of Fightingtown Creek.

4. Alternates B, C and D would go through the community in and near Fightingtown Creek. Have options further west been explored – in less populated areas with similar elevations.
5. Alternate 1 seems to be the best, except it should be 4-lane to the co-op (TSEMC), then leave present road to the stateline and split-off with a 2-lane bypass to Highway 68 in Tennessee.
6. Alternate 1 will cause too many commercial and residential displacements.
7. Alternates 2 and 4 would destroy the economy of McCaysville. A bypass would alter the character of the area.
8. Alternate D provides the least disruption. Follow Alternate B from "begin project" to West Fannin Elementary, then follow Alternate A to where it crosses Alternate B again, then follow Alternate B to Highway 68 in Tennessee.
9. Widen the existing road into McCaysville and make the road through town a one-way road. North on existing road and use the old bridge as a south bound road.
10. Consider a truck route as an alternate plan instead of a complete by-pass of the downtown. As a business owner in downtown McCaysville, clear exits and easy access is needed into the downtown historic district and signage to invite visitors and tourists to still come to the area. Adding McCaysville as a historic town similar to Copperhill, Tennessee as it has old homes and businesses dating back to the 1900's.
11. The easiest and least costly alternate which will not misplace anyone would be: At police station make Hwy 5 bare left at light on to Tennessee Avenue and go down and cross Oconee River right before you get to Fightingtown Creek, crossing over the river to the old train tracks back to Hwy 68. This would be a great truck route/bypass without killing the businesses in the town of McCaysville.
12. We don't need a 4 lane hwy. It's less costly to build a 2-lane road.
13. What is the need for the proposed road work near Mull Road (i.e. Merciers and Tom Boyd Road)? Why can't this be included with this project?
14. Why is this project so closely linked to the "Mercier" project on Hwy 5? None of the proposed routes begins before Mull Road on Hwy 5N, which is beyond Merciers Orchard. A development approximately 7 miles from Blue Ridge was required to fund the installation of acceleration/deceleration lanes along with a turn lane. The Merciers project should be handled the same way.
15. The traffic on Old Hwy 5 is very bad at the hospital area and Meciers Orchard drivers are very bad and wild speeders. No police.

16. We own the yellow jacket restaurant located on Hwy 5. When the road is widened, the traffic would be more and traveling even faster causing more accidents to people trying to turn into our parking lot. We would suggest that you consider widening the road on our side since there are so many houses and businesses on the opposite site.
17. Three alternates would destroy beautiful forest, wildlife and habitat and would go straight through my backyard.
18. We are a quiet community with cabins and homes where retired individuals and working people live. The bypass would threaten the peace and tranquility that attracted me and my family to the area. Concern that Alternate D would impact our mountains and atmosphere.
19. There were a little too many options to take in at once.
20. The proposal costs too much. The State is broke and does not need to ask more of their citizens. I will also take that in the future you will raise our taxes because of the new road.
21. We need more advance notices and repeated notices of meetings. Have more information on time and place of meeting. Send letters to everyone in the zip code by mail. Newspapers are a dying industry.
22. How can we be put on an email notification list for future stakeholder meetings and public input sessions?
23. I missed the meeting on November 17. Do you have a copy of the map that shows the possible routes and residences that it will go through?
24. My home is well over 50 years old, but was not included in the historical areas. Why?

OFFICIALS:

The public officials listed below attended the meeting. A sign in sheet is attached.

Rusty Whittenbarger, McCaysville City Council
Larry Sosebee (office unspecified)
Richard Wagner, McCaysville City Council
Thomas Seabolt, McCaysville Mayor
Thomas Mya – Copperhill, TN. (office unspecified)
Bill Simonds, Fannin County
Luther Patterson, Fannin County
Chuck Shealy (office unspecified)
Edward Massengale, McCaysville City Council

MEDIA:

Dub Joiner, **The News Observer**, Phone: 706-632-2019,
dub@thenewsobserver.com; www.thenewsobserver.com

Lisa Gagnon of the **Fannin Sentinel**, Phone 706-851-5726
www.georgiasentinel.com

Brian Pritchard, **Fetchyournews.com**, Phone 706-276-NEWS (6397)
www.fannin.fetchyournews.com

DISPOSITION OF COMMENTS:

Jacobs Engineering Group will respond to all comments on behalf of the Department of Transportation.

The GDOT offices in the table below are asked to review the responses provided by the consultant for the comments in their section. The project manager will review all responses.

REVIEWING OFFICE	COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
Design	4	Alternate 1 seems to be the best, except it should be four-lane to the co-op (TSEMC), then leave present road to the stateline and split-off with a two-lane bypass to Highway 68 in Tennessee.	The various alternates will continue to be evaluated in their location as well as the number of lanes. Public input will be used in further evaluation of the project.
	22	Alternate D provides the least disruption. Follow Alternate B from "begin project" to West Fannin Elementary, then follow Alternate A to where it crosses Alternate B again, then follow Alternate B to Highway 68 in Tennessee.	Various alternatives have been evaluated within the study area and many factors were used in the development of these alternates such as topography, right-of-way impacts and environmental effects. As the project is in the conceptual design phase, public input will be used in further evaluation of the alternates and possible combinations of the alternates.
	52, 59	The easiest and least costly alternate which will not misplace anyone would be: At police station make Hwy 5 bare left at light on to Tennessee Avenue and go down and cross Oconee River right before you get to Fightingtown Creek, crossing over the river to the old train tracks back to Hwy 68. This would be a great truck route/bypass without killing the businesses in the town of McCaysville.	Various alternates have been evaluated within the study area and many factors were used in the development of these alternates such as topography, right-of-way impacts and environmental effects. As the project is in the conceptual design phase, the public input will be used in further evaluation of the alternates and possible combinations of the alternates.

REVIEWING OFFICE	COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
Design	23	Widen the existing road into McCaysville and make the road through town a one-way road. North on existing road and use the old bridge as a south bound road.	Various alternates have been evaluated within the study area and many factors were used in the development of these alternates such as topography, right-of-way impacts and environmental effects. As the project is in the conceptual design phase, public input will be used in further evaluation of the alternates and possible combinations of the alternates.
	1,2,3,56,64,65 66,67,68	Project would impact our home and the community of Fightingtown Creek.	The National Environment Policy Act (NEPA) requires that project impacts be evaluated for the no-build and build alternatives considered and that the alternate that best meets the project's need and purpose while minimizing impacts be selected.
	60	We own the "Yellow Jacket" restaurant located on Hwy 5. When the road is widened, the traffic would be more and traveling even faster causing more accidents to people trying to turn into our parking lot. We would suggest that you consider widening the road on our side since there are so many houses and businesses on the opposite site.	In areas where the existing road may be widened, various factors such as right-of-way impacts, curve design, sight distances and other safety related issues influence which side of the road to widen. Once an alternate is determined, further study will be done to set the exact alignment including which side of the existing road to widen.
	24	What is the need for the proposed road work near Mull Road (i.e. Merciers and Tom Boyd Road)? Why can't this be included with this project?	Road projects typically have different funding sources with different schedules. Small traffic improvement projects can be completed sooner than a large road construction project.

REVIEWING OFFICE	COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
Design	57	None of the proposed routes begin before Mull Road on Hwy 5N, which is beyond Merciers Orchard. That project could be helped by the construction of an exit on the back side of their property. A development approximately seven miles from Blue Ridge was required to fund the installation of acceleration and deceleration lanes along with a turn lane. The Merciers project should be handled the same way.	All alternates begin approximately 500 feet north of the intersection of SR 5 and SR 2/SR 515. During the preliminary design phase, the need for turn lanes and signals will be evaluated along the selected alignment.

REVIEWING OFFICE	COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
Right-of-Way	56	The effect this road will have on property value is of great concern. How much ease of access will I have to my property?	Land acquisition for transportation purposes is strictly governed by numerous state and federal laws and regulations. Since it is not appropriate to discuss individual impacts and compensation in this format, the GDOT Right-of-Way Office will send out letters under separate cover to those property owners who would be affected by land acquisition for the proposed project. For additional information, please contact Eric Murray at (404) 347-0176.
	56	The maps provided show neighbors homes on either side of me being removed but not my home. Is it because my home is farther from the road? Information provided shows some of my property will probably be taken to build the road. This will put the 4-lane road almost at my front door.	

REVIEWING OFFICE	COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
Traffic Operations	28	The traffic on Old Hwy 5 is very bad at the hospital area and drivers are very bad and wild speeders. No police.	The proposed project will include operational, capacity, and safety improvements that will accommodate ingress and egress at high traffic locations. Furthermore, this project will improve safety by improving horizontal and vertical curves and line of sight.
	21	Consider a truck route as an alternate plan instead of a complete by-pass of the downtown.	One of the benefits of a bypass is to reduce truck traffic in the downtown classification area. Traffic studies to evaluate the best use of a bypass (if selected) will be completed during the project's design phase.
	60	We don't need a four- lane highway. It's less costly to build a two-lane road.	Traffic studies have identified the need for a four-lane roadway for much of the corridor. A two-lane bypass around McCaysville is being evaluated to determine if it will accommodate existing and future traffic demands.

REVIEWING OFFICE	COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
Planning	54,55,58	Alternates B, C and D would go through the community in and near Fightingtown Creek. Have options further west been explored – in less populated areas with similar elevations.	Various alternatives have been evaluated within the study area and many factors were used in the development of these alternates such as topography, right-of-way impacts and environmental effects. As the project is in the conceptual design phase, all alternatives and public input will be given consideration and used in further evaluation of the alternates.
	6,7,50	Alternate 1 will cause too many commercial and residential displacements.	Alternate 1 was evaluated to determine the cost and effects of widening the existing road. The National Environment Policy Act (NEPA) requires that project impacts be evaluated for the no-build and build alternatives considered and that the alternative that best meets the project's need and purpose while minimizing impacts be selected.
	7,8,27,75	A bypass would destroy the economy of McCaysville. A bypass would alter the character of the area.	The National Environment Policy Act (NEPA) requires that project impacts be evaluated for the no-build and build alternatives considered and that the alternative that best meets the project's need and purpose while minimizing impacts be selected.
	56,59	The proposal costs too much. The State is broke and does not need to ask more of their citizens. I will also take that in the future you will raise our taxes because of the new road.	During the project development process, the Department conducts a project benefit-cost analysis to determine which alternative would be cost effective and would best meet the project need and purpose. The Department also requires that a Value Engineering study be conducted to consider various cost saving methods in the design.
	34	There were a little too many options to take in at once.	The various alternatives were identified through analysis and stakeholder input.
	44,59,69	We need more advance notices and repeated notices of meetings. Have more information on time and place of meeting. Send letters to everyone in the zip code by mail. Newspapers are a dying industry.	Public notices are published in the local newspaper for 30 days. Signage about the meeting is also provided.

REVIEWING OFFICE	COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
Planning	54,55,63	How can we be put on an email notification list for future stakeholder meetings and public input sessions?	Your request has been forwarded to the project manager for inclusion in the notification list for future stakeholder meetings. Public notices and signs will be issued for all future public meetings.
	54,74	I missed the meeting on November 17. Do you have a copy of the map that shows the possible routes and residences that it will go through?	Additional project information can be obtained by contacting the Project Manager at 404-631-1575, or the NEPA Planner at 404-631-1190 of the Office of Environmental Services, or through the project website at http://www.dot.state.ga.us/informationcenter/activeprojects/StateRoute/sr5mccaysville/Pages/default.aspx

REVIEWING OFFICE	COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
Environment	51,52,75	Three alternates would destroy beautiful forest, wildlife and habitat and would go straight through my backyard. Concern that Alternate D would impact our mountains and atmosphere.	In compliance with NEPA, an environmental assessment is being prepared to evaluate the impacts the project would have on the environment including threatened and endangered species, wildlife, and plant communities. Air quality studies will also be conducted for the project. Avoidance, minimization and mitigation measures will be considered as a part of this assessment
	52,53,56,64,65,66,67,68,75	We are a quiet community with cabins and homes where retired individuals and working people live. The bypass would threaten the peace and tranquility that attracted me and my family to the area.	Noise impact assessments will be conducted for the project and noise abatement measures will be considered as a part of this assessment.
	21	As a business owner in downtown McCaysville, clear exits and easy access is needed into the downtown historic district and signage to encourage visitors and tourists to still come to the area. Adding McCaysville as a historic town similar to Copperhill, Tennessee as it has old homes and businesses dating back to the 1900's.	In compliance with Section 106 of the National Historic Preservation Act, the Department will attempt to identify historic properties already listed in the National Register of Historic Places (NRHP) and any properties not already listed that would be considered eligible for listing that are located within the geographic area of potential effects (APE) of the proposed projects. The Historic Preservation Division of the GDNR makes the final determination with the finding of eligibility for the historic resources.
	48	My home is well over 50 years old, but was not included in the historical areas. Why?	In compliance with Section 106 of the National Historic Preservation Act, the Department will attempt to identify historic properties already listed in the National Register of Historic Places (NRHP) and any properties not already listed that would be considered eligible for listing that are located within the geographic area of potential effects (APE) of the proposed projects. The Historic Preservation Division of the GDNR makes the final determination with the finding of eligibility for the historic resources.

Attached is a complete transcript of the comments received during the comment period and a copy of the public information open house handout for review. **Your input on the proposed responses is required by December 16, 2011**. Please direct your comments via email to Marie Njie (marie.njie@jacobs.com) and copy Funmi Adesesan (oadesesan@dot.ga.gov), of this office.

If you have any questions about the comments, please either email or call Funmi Adesesan at (404) 631-1190.

GB/fa/mn

Attachments

DISTRIBUTION:
Ben Buchan, w/attachments
Russell R. McMurry, w/attachments
Kimberly Nesbit, P.E., w/attachments
District Engineer Attn: Todd McDuffie, w/attachments
Angela T. Alexander, w/attachments
Kathy Zahul, P.E., w/attachments
Howard (Phil) Copeland (Attn: Troy Byers), w/attachments

PI#(s): NO 621340, 620490 County: Fannin County, GA and Polk County, TN

GDOT NEPA Planner: Aaron Burgess **Date Submitted:** 12/5/2016

Consultant Preparer (if applicable): Anna Ingwersen and Jonathan Cox (Jacobs)

GDOT Project Manager: Nicole Law

Jacobs will be responsible for coordinating all responses with the appropriate GDOT office and preparing the response.

****

PI#(s)	620490 and 621340
County(ies)	Fanning County, GA & Polk County, TN
District	6
OH Type	PIOH
OH Date	10/19/2016
Date Responded	Responses to be mailed out by December 16, 2016
#Attendees	447
#Comments	126
#For	33
#Against	43*
#Conditional	29
#Uncommitted	21
#Newspaper	40
#Signs	38
#GDOTsite	3
#Radio	0
#WordOfMouth	18
#SocialMedia	9
#Other	2
#LocNotConvienient	0
#TimeNotConvenient	0
#QuestionsNotAnswered	24
#NotUnderstand	17
Add'l Info	At the PIOH, the typical section and proposed centerline was on display. Several citizens commented that not enough information was presented for them to tell how the project was personally impacting them. An additional PIOH will be conducted in the Spring of 2017 to show more information (as part of the Public Engagement Plan). *One of the comments noted as against was a petition signed by 11 individuals.
Add'l Efforts	None

PI#(s): NO 621340, 620490 County: Fannin County, GA and Polk County, TN

Major Concerns:

- Several of the commenters were against the Truck Bypass portion of the project but in support of the improvements along the existing State Route 5.
- Several comments wanted an alternative through McCaysville considered instead of the Truck Bypass. Some of these comments included a recommended alternative (attached to the comment) that can be viewed on the "Stop the McCaysville Bypass" Facebook page.
- Several comments questioned the impact on Downtown McCaysville (economy and businesses) if the Truck Bypass was constructed.
- Several comments noted that improvements along State Route 5 are needed to improve safety and to provide trucks an option.
- Many of the comments were related to personal issues:
    - Increase of noise and traffic from the bypass.
    - Property depreciation.
    - A local company, Melwood Springs, expressed concern about the negative impact of the bypass on the spring water that they bottle.
- Many residents gave very specific feedback regarding design specifics of the project's engineering and how traffic lights should be placed along segments of the bypass.
- Many felt that GDOT didn't bring enough detail to the PIOH to ask specific property questions.

Public Officials:

Speaker of the House David Ralston; Senator Steve Gooch; Mayor Thomas Seabolt (McCaysville); Mayor Donna Whitener (Blue Ridge);

Media:

The News Observer, Blue Ridge, GA

Disposition of Comments:

Jacobs will be responsible for coordinating and preparing all responses with the appropriate GDOT offices. Below are the main comment themes received during the public comment period.

Office of Program Delivery/Office of Innovative Delivery

Nature of Comment	Comment #
• Who is paying for the project? If Georgia taxpayers pay for the project to bypass McCaysville which will negatively impact the town's economy, how is this justified? • There needs to be a vote on the bypass (Don't support the bypass but support the SR 5 improvements). • Why is the bypass being explored more than the other options? Commented that improvements along the existing SR 5 (through McCaysville) should be explored.	12,47,61,73,79,80 113,116, 121, 122, 123, 125

Office of Roadway Design/Office of Bridge Design and Maintenance, or Responsible Design Office

Nature of Comment	Comment #
• How will GDOT address specific local needs for designing the project? (or I have specific concerns/input about the design) • As a community, we have specific concerns for our businesses in McCaysville and along the impacted area of the highway.	7,14,16,19,20,21,25,29, 37,39,47,50,51,54,55,56, 59,60,68,70,74,75,77,78, 79,80,81,82,84,86,88,92 93,97,99,102,106,111,112, 114,115,117,118,120, 124,

PI#(s): NO 621340, 620490 County: Fannin County, GA and Polk County, TN

Office of Right of Way

Nature of Comment	Comment #
• Will my property be seized by eminent domain for the bypass? • The bypass is running right by my home or through my land – what are the next steps?	1,6,14,23,25,27,42,43, 44,45,49,78,80,82,87, 94,98,103,104,105,106, 107,108,110,111,112, 115,116,117,118,119

Office of Traffic Operations

Nature of Comment	Comment #
• How and what will GDOT do to make sure that traffic signals actually reflect local traffic patterns? • How will GDOT make sure speeding is controlled?	40,41,50,95,97

Office of Planning

Nature of Comment	Comment #
• Why aren't the four other alternatives that were initially proposed by GDOT Office of Planning being explored?	2,9,23,24,25,26,27, 30,31,32,33,35,41, 44,47,68,77,79,80, 84,89,101,105,108,111

Office of Environmental Services

Nature of Comment	Comment #
• How will the project impact local water? • How will the project impact tourism for trout fishing? • How will the project impact the local environment? • My home and/or land are historic and/or a cultural resource. • The bypass will create noise pollution for me. • The bypass will negatively impact my quality of life.	15,28,30,38,42,47,49, 64,69,76,78,79,82,83, 85,87,92,96,98,101,116

Please find attached a PDF of all comments and the public official sign in sheet (or a link to the PDF) and a Word document of the draft response letter.

Cc (by email): Nicole Law, Project Manager,
Ryan Triick, Jacobs Project Manager
Wesley Brock, Assistant ROW Administrator
Paul DeNard, Traffic Operations Manager
Matthew Fowler, Assistant Office Head of Planning

PDF to Project Documents; Hardcopy to General Files

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: NH000-0057-01(010),(011) Fannin Co. **OFFICE:** Engineering Services
P.I. No.: 621340- & 620490-
SR 5 from SR 2/Blue Ridge to Tennessee Line **DATE:** January 27, 2017

FROM: Lisa L. Myers, State Project Review Engineer

TO: Albert Shelby, State Program Delivery Engineer
Attn.: Nicole Law

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

The VE Study for the above project(s) was held August 29 - September 1, 2016. Revised responses were received on December 8, 2016. Recommendations for implementation of the Value Engineering Study Alternatives are indicated in the table below. The Project Manager shall incorporate the VE alternatives recommended for implementation to the extent reasonable in the design of the project. Please note, if the implementation of a VE recommendation requires a Design Exception and/or Design Variance, the DE or DV must be requested separately.

ALT #	Description	Potential Savings/ LCC	Implement	Comments
SR 5 from SR 2/Blue Ridge to Proposed Bypass PI#621340-				
SR 5 R-1.0	Construct 5-lane from the Beginning of Project to Sta. 235+00 (Tom Boyd Road /Scenic Drive) then 3-lanes with passing lanes at various locations to Sta. 465+00 (Old Hwy 5).	Proposed = $5,413,683 Actual = $2,556,149	Yes, with modifications	Traffic volumes suggest that a 3-lane section could begin between Sta. 235+00 and Kell Lane (Sta. 399+00). Public comments and passing lanes will be considered, but are dependent on the location that the 5-lane section ends. Refer to the adjusted cost savings calculations by Consultant Designer.
R-2.1	For 5-lane section, use 11 foot inside lane width and 12 foot outside lanes.	Proposed = $382,445 Actual = $311,927	Yes, with modifications	The modification is using the conservative 5-lane section ending at 399+00 noted in R-1.0.
R-3.0	Reduce partial depth paved shoulder width from 6.5 feet to 4 feet wide.	$478,889	No	SR5 is currently listed on the 2005 Regional Bike as well as the City and County plans for Pedestrians. Therefore, the Offices of Traffic Operations and Design Policy & Support suggests not to pursue this alternative.

R-4.0	Reduce Design and Posted Speed from 55 mph to 45 mph from beginning of project to Sta. 235+00.	$1,004,122	Yes, with conditions	A request to change the design speed will be submitted. If it is not approved, the geometry will be adjusted to meet AASHTO criteria for 55mph where possible. If locations that meet 55mph create significant impacts, design exceptions will be submitted to request the use design criteria of a 45 mph speed design.
R-6.0	Adjust horizontal alignments and Right of Way widths at specific locations along 5-lane section to reduce some property displacements.	$2,297,500	Yes	This will be done. The proposed Right of Way width along the 5-lane section will be reduced from 150 feet to 120 feet. The proposed width along the 3-lane section will be reduced from 120 feet to 100 feet.
R-7.0	Combine SR 5 widening project and McCaysville Truck Bypass Project into a Single Bid.	$2,356,594	No	The Office of Planning programmed these projects based on budget requirements, available funding, and their constructability. If a project progresses faster than the other, GDOT does not want to hold one project up until the other project is completed. Considering the constraints of the Bypass with the constructability and entering into another state, it is more feasible to keep them separate.
McCaysville Truck Bypass PI# 620490-				
R-1.0	Eliminate 4 foot flush median.	$870,203	Yes	This will be done.
R-2.1	Reduce paved shoulder from 10 feet partial depth to 4 feet wide full depth. This was later revised to 4 feet partial depth to match the previous project and its shoulder.	Proposed = $30,410 Actual = $402,777	Yes, with modifications	This modified alternative will be implemented into the plans for the bypass.
R-4.0	Combine SR 5 widening project and McCaysville Truck Bypass Project into a Single Bid.	$1,071,828	No	Same reasons for R-7.0 previously, but the amount of potential savings was shown for this project based on the quantities of materials (if items were bid for the same unit costs).
R-5.0	Reduce Tie-In length at end of the project.	$187,811	Yes	This will be done.
B-1.0	Reduce the clear bridge width for Bridges 1-4 from 48 feet to 44 feet.	$549,720	Yes	This will be done, while maintaining the bridge width of 40'-0" from gutter to gutter.
B-2.0	Extend Bridge 1 to 3 span arrangements and eliminate portions of the MSE walls.	$1,748,093	Yes	This will be done.

B-4.0	Combine Bridge 2 and Bridge 3 into a single bridge structure.	**Cost Increase ($302,592)**	No	This alternative and B-4.1 cannot both be implemented. Since the proposed grades will allow for a driveway connection, B-4.1 will be completed.
B-4.1	Eliminate Bridge 3 and provide driveway to East side of Bypass.	$501,132	Yes	This will be done instead of B-4.0.

The Office of Engineering Services concurs with the Project Manager's responses.

Approved: Margaret B. Pirkle **Date:** 2/1/17
Margaret B. Pirkle, P.E., Chief Engineer

* major scope changes are underway for P.I. 620490-. Recommendations in this report may no longer apply to this project. I did not want to hold up approval for P.I 621390:

LLM/EAR/MJS
Attachments

c: Hiral Patel
Albert Shelby/Kimberly Nesbitt/Cynthia Burney/Nicole Law
John Hancock
Bill Duvall/Steve Gaston
Aaron Burgess
Jeremy Scott
Christopher Raymond/Katelyn Digioia
Dave Peters
Erik Rohde/Matt Sanders

VE Study Review by Design Policy & Support

PI 621340- & 620490-

Table 1: PI 621340- SR5 Widening from SR2 to Proposed McCaysville Truck Bypass

Idea No.	VE Proposal Description	Savings	Designer Recommendation	Design Policy & Support Recommendations and Comments
R-1.0	Construct 5-lane from beginning of project to STA 235+00 (Tom Boyd Road/Scenic Drive) then 3-lanes with passing lanes at various locations from STA 235+00 to STA 465+00 (Old Hwy 5)	$5,413,683	Agree, with Modifications	**Concur** - Design Engineer recommends further study to determine typical section limits. Design year ADT = 22,520 in proposed 5-lane section, and approximately 16,000-18,000 in proposed 3-lane section. Typical sections are consistent with GDOT policy for arterial roadways. Designer states traffic study will be done during preliminary design to determine limits of each typical section.
R-2.1	For 5-lane section, use 11ft inside lane and 12ft outside lane	$382,445	Agree, with Modifications	**Concur** - Design Variance or Design Exception would be required for 11ft lanes on NHS route. For Rural Arterials, AASHTO specifies 12ft lane widths (p7-13, 6th edition) except where narrower lanes previously exist. Approval of a Design Variance required if 50mph or less; Design Exception required if >50mph. Obtaining approval of the DV/DE for reduced lane width would likely require HSM analysis to determine if appropriate.
R-3.0 **See Note 1**	Reduce partial depth paved shoulder width from 6.5ft to 4ft	$478,889	Agree, with Conditions	**Disagree** - SR5 is included in the 2005 Regional Bike and Pedestrian Facilities Plan as a bike route. Omitting the bikeable shoulders would require a Design Variance.
R-4.0	Reduce design and posted speed from 55mph to 45mph from beginning of project to Tom Boyd Road/Scenic Drive	$1,004,112	Agree, with Conditions	**Concur** - Further study and approval required. Reducing the proposed design and posted speed would require a speed study; approval of DV's for sections of the project are likely to be required if overall speed reduction is not approved.
R-6.0	Adjust horizontal alignments and right-of-way widths at specific locations along 5-lane section to reduce property displacements	$2,297,500	Agree, with Conditions	**Concur**
R-7.0	Combine SR5 widening project and McCaysville Truck Bypass project into a single bid	$1,071,828	Disagree	**Concur** – Agree with designer that both projects have independent utility; keeping them separate would allow projects to proceed autonomously.

VE Study Review by Design Policy & Support

PI 621340- & 620490-

Table 2: PI 620490- McCaysville Truck Bypass from SR5 to Tennessee State Line

Idea No.	VE Proposal Description	Savings	Designer Recommendation	Design Policy & Support Recommendations and Comments
R-1.0	Eliminate 4ft flush median	$870,203	Agree	**Concur** - Further study recommended. There is no specific GDOT or AASHTO Design Policy requiring a median for a 2-lane arterial roadway on new location. Centerline rumble strips could be provided as an alternative. HSM analysis of effect of removing median is recommended.
R-2.1 **See Note 2**	Reduce paved shoulder from 10ft wide partial depth pavement to 4ft wide full depth pavement + 4ft grassed	$30,401	Agree	**Disagree** - Reduction of paved shoulder width on a truck bypass (approx. 7% T) is not recommended. Trucks utilizing the soft shoulder could result in maintenance issues for minimal construction savings.
R-4. 0	Combine SR5 widening project and McCaysville Truck Bypass project into a single bid	$1,071,828	Disagree	**Concur** – Agree with designer that both projects have independent utility; keeping them separate would allow projects to proceed autonomously.
R-5.0	Reduce tie-in length at end of project	$187,811	Agree	**Concur** – Tie-in lengths should be reduced as practical.
B-1.0	Reduce the clear bridge width for bridges 1 thru 4 on the truck bypass from 48 feet to 44 feet [Reducing bridge shoulder width]	$549,720	Agree	**Concur** - Proposal would reduce bridge shoulders from 10ft to 8ft, which complies with Bridge Design Manual. If 4ft median is removed (Idea R-1.0), bridge may be narrowed further, or 10ft shoulder could be maintained across bridges.
B-2.0	Extend Bridge 1 to 3-span arrangement and eliminate portions of retaining walls	$1,748,093	Agree	**Concur**
B-4.0	Combine Bridge 2 and Bridge 3 into a single bridge structure	($302,592)	Disagree	**Concur** - Incompatible with Idea B-4.1 below.
B-4.1	Eliminate Bridge 3 and provide driveway to east side of bypass	$501,132	Agree	**Concur** – Structure on east side appears to be a water treatment facility. There are newer buildings on the west side of the proposed bypass that are not shown on the VE Study layouts which would have access via Mobile Rd/W Tennessee Ave.

Note 1: Office of Traffic Operations State Bicycle and Pedestrian Coordinator confirmed the 2005 Regional Bike and Pedestrian Facilities Plan for the North Georgia Region is still valid. Also the 2007 Fannin County Bike Route map and 2008 Plan for the City of Blue Ridge also reflect the 2005 designation of SR 5 as a planned bike rout for the North Georgia Region.

Note 2: Engineering Services discussed Idea No. R-2.1 for PI 620490- with Dave Peters of the Office of Design Policy & Support who reviewed the recommendations as requested by the Division Director of Engineering. The VE study Idea was revised to reduce the paved outside shoulder from 10-feet wide partial depth to 4-feet wide partial depth with 8-feet wide graded shoulder for an expected savings of $402,777. When the Office of Design Policy & Support reviewed the recommendations the expected savings was only $30,410 because it and the description did not reflect the revised VE Study Idea. When presented with the revised Idea and expected savings he agreed with the recommendation to implement R-2.1 on PI 620490-.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE NH-057-1(11) & NH000-0057-01 (010), Fannin County
P.I. No. 620490- & 621340-
McCaysville Bypass from SR 5 to TN State Line
SR 5 fm SR 2/Blue Ridge N to McCaysville Bypass

OFFICE Program Delivery

DATE December 8, 2016

FROM Albert V. Shelby, III, State Program Delivery Engineer

TO Lisa Myers, State Project Review Engineer
Attention: Matt Sanders, Value Engineering Specialist

SUBJECT Response to Value Engineering Study Alternatives

Attached are the updated responses for the Value Engineering Study based off your Office's comments from our November 1, 2016, VE Study Report responses submittal. This office concurs with the responses submitted by Jacobs Engineering for the above mentioned projects.

If you have any questions please contact Nicole Law at 404-631-1723.

AVS:KWN:CCB:NSL

Attachments

JACOBS®

Transmittal

Ten 10th Street, NW, Suite 1400
Atlanta, Georgia 30309
United StatesT +1.404.978.7600
www.jacobs.com

Date	December 8, 2016	**From**	Ryan Triick, PE
Attention	Nicole Law	**Project**	SR 5 Widening and McCaysville Truck Bypass
Company	GDOT Office of Program Delivery	**Project No.**	PI Nos. 621340 & 620490
Copies to	Nicole Law, GDOT	**No. of Pages**	10
Subject	Value Engineering Study Responses	**File**	

Attached is the revised Value Engineering Study responses per the comments received from the Office of Engineering Services. Please review and forward as appropriate. If you have any questions, please contact Ryan Triick, Jacobs (404-978-7431).

Enclosures/Attachments

☒	Letter	☐	Sketch
☐	Contract Documents	☐	Modification Drawings
☐	Print	☐	Clarification Drawings
☐	Sample	☐	Shop Drawings
☐	Proposal	☐	Other: Click to enter text.

Action Requested

☐	Resubmit	☐	Please Comment
☒	For Your Review	☒	For Your Approval
☐	Information Only	☐	Reply ASAP
☐	Your Information and File	☐	For Your Signature
☐	Other: Click here to enter text.		

Jacobs Engineering Group Inc.

VE ALTERNATIVE #R-1.0
Construct 5-lane from Beginning of Project to Sta 235+00 (Tom Boyd Road/Scenic Drive)
then 3-Lanes with Passing Lanes at Various Locations to Sta 465+00 (Old Hwy 5).

Disposition Recommendation: *(Select one)*

☐ AGREE ☒ AGREE, WITH MODIFICATIONS ☐ DISAGREE

Explain, comment, and/or discuss rationale for disposition recommendation:

Jacobs reviewed the projected traffic volumes along the SR 5/Blue Ridge Drive corridor including the side road turning movements. Traffic volumes suggest that a 3-lane section could begin between Tom Boyd Road (STA 235+00) and Kell Lane (STA 399+00). These two streets are approximately 3 miles apart.

For the PIOH held in mid-October, Jacobs revised the layout to show the 5-lane section ending at Old Highway 2 (STA 300+00) which is approximately 1.2 miles north of Tom Boyd Road. There were many residents that strongly recommended the 5-lane section should go further north than Old Highway 2 due to congestion and safety concerns. These public comments will be taken into consideration as well.

A traffic study will be done in the preliminary design phase that will study this further and may result in changing this location. The traffic study will evaluate LOS at the intersections which will play a factor in the location of the end of the 5-lane section. Passing lanes will be considered at the following locations, but are dependent on the location that the 5-lane section ends. For example, if the 5-lane section ends at Kell Lane, no passing lanes are anticipated to be included.

- NB #1: STA 338+00 to 359+20
- SB #1: STA 356+80 to 378+00
- SB #2: STA 395+00 to 410+00

Assuming that the 5-lane section ends as far north as Kell Lane or as far south as Tom Boyd Road, the range of estimated savings is from $2,556,149 to $5,413,683. Please see the attached Adjusted Cost Savings calculations for savings of the 5-lane section ending at Kell Lane. Refer to the VE Study for the calculations of ending the 5-lane section at Tom Boyd Road.

VE ALTERNATIVE #R-2.1
For 5-Lane Section, Use 11 Foot Inside Lane Width and 12 Foot Outside Lane.

Disposition Recommendation: *(Select one)*

☐ AGREE ☒ AGREE, WITH MODIFICATIONS ☐ DISAGREE

Explain, comment, and/or discuss rationale for disposition recommendation:

The inside thru lanes of a 5-lane typical section will be 11 feet wide. The modification is using the conservative 5-lane end station of 399+00 noted in #R-1.0.

Sta 107+00 to Sta 399+00 = 29,200 LF
29,200 LF X 2 LF = 58,400 SF/9 = 6,489 SY
6,489 SY X $48.07/SY = $311,927

VE ALTERNATIVE #R-3.0
Reduce Partial Depth Paved Shoulder Width from 6.5 Feet to 4 Feet

Disposition Recommendation: *(Select one)*

☐ AGREE ☒ AGREE, WITH CONDITIONS ☐ DISAGREE

Explain, comment, and/or discuss rationale for disposition recommendation:

As noted in the VE Study, a 4-foot paved shoulder width meets AASHTO requirements but not the GDOT Design Policy for the project's current design speed (55 mph) and classification (Rural Principal Arterial). A Design Variance will be submitted. If approved, the paved shoulder width will be reduced to 4-feet.

VE ALTERNATIVE #R-4.0
Reduce Design and Posted Speed from 55 MPH to 45 MPH from Beginning of Project to Sta 235+00 (Tom Boyd Road/Scenic Drive).

Disposition Recommendation: *(Select one)*

☐ AGREE ☒ AGREE, WITH CONDITIONS ☐ DISAGREE

Explain, comment, and/or discuss rationale for disposition recommendation:

A request to change the design speed from 55 mph to 45 mph from the beginning of the project to Tom Boyd Road will be submitted to GDOT for approval. If it isn't approved, the horizontal and vertical geometry of SR 5 will be adjusted to meet AASHTO criteria for 55 mph where possible. In locations that meeting 55 mph creates

significant impacts, design exceptions will be submitted to GDOT requesting to use the design criteria for design speeds of 45 mph.

VE ALTERNATIVE #R-6.0
Adjust Horizontal Alignments and Right of Way Widths at Specific Locations Along 5-Lane Section to Reduce Property Displacements.

Disposition Recommendation: *(Select one)*

☒ **AGREE** ☐ **AGREE, WITH MODIFICATIONS** ☐ **DISAGREE**

Explain, comment, and/or discuss rationale for disposition recommendation:

The horizontal alignment will be shifted and/or walls will be proposed at various locations along the project in preliminary design to minimize impacts. The proposed Right of Way width along the 5-lane section will be reduced from 150 feet to 120 feet. The proposed Right of Way width along the 3-lane section will be reduced from 120 feet to 100 feet.

VE ALTERNATIVE #R-7.0
Combine SR 5 Widening Project and McCaysville Truck Bypass Project into a Single Bid.

Disposition Recommendation: *(Select one)*

☐ **AGREE** ☐ **AGREE, WITH MODIFICATIONS** ☒ **DISAGREE**

Explain, comment, and/or discuss rationale for disposition recommendation:

The Office of Planning programmed these projects based off of budget requirements, funding availability, and constructability. If one project progresses faster than the other and the funds are available, the Department would not want to hold one project up until the other was completed. Considering some of the constraints of the Bypass with the constructability and entering into another state, it is more feasible to keep the projects separate.

VE ALTERNATIVE #R-1.0
Eliminate 4 Foot Flush Median.

Disposition Recommendation: *(Select one)*

☒ AGREE ☐ AGREE, WITH MODIFICATIONS ☐ DISAGREE

Explain, comment, and/or discuss rationale for disposition recommendation:

VE ALTERNATIVE #R-2.1
Reduce Paved Shoulder from 10-Foot-Wide Partial Depth to 4-Foot-Wide Full Depth.

Disposition Recommendation: *(Select one)*

☐ AGREE ☒ AGREE, WITH MODIFICATIONS ☐ DISAGREE

Explain, comment, and/or discuss rationale for disposition recommendation:

To be consistent with PI 621340, the shoulder will be reduced to a 4-foot wide partial depth shoulder rather than full depth. The calculations based on a partial depth shoulder are attached.

VE ALTERNATIVE #R-4.0
Combine SR 5 Widening Project and McCaysville Truck Bypass Project into a Single Bid.

Disposition Recommendation: *(Select one)*

☐ AGREE ☐ AGREE, WITH MODIFICATIONS ☒ DISAGREE

Explain, comment, and/or discuss rationale for disposition recommendation:

The Office of Planning programmed these projects based off of budget requirements, funding availability, and constructability. If one project progresses faster than the other and the funds are available, the Department would not want to hold one project up until the other was completed. Considering some of the constraints of the Bypass with the constructability and entering into another state, it is more feasible to keep the projects separate.

VE ALTERNATIVE #R-5.0
Reduce Tie-In Length at End of Project.

Disposition Recommendation: *(Select one)*

☒ **AGREE** ☐ **AGREE, WITH MODIFICATIONS** ☐ **DISAGREE**

Explain, comment, and/or discuss rationale for disposition recommendation:

The tie-in length of the end of the project will be reduced in preliminary design to the location where the proposed horizontal and vertical alignments feasibly tie to the existing. STA 715+00, as recommended by this VE comment, appears to work based on the geometry of the proposed alignment at this time.

VE ALTERNATIVE #B-1.0
Reduce the Clear Bridge Width for Bridges 1 thru 4 on the Truck Bypass from 48 feet to 44 feet.

Disposition Recommendation: *(Select one)*

☒ **AGREE** ☐ **AGREE, WITH MODIFICATIONS** ☐ **DISAGREE**

Explain, comment, and/or discuss rationale for disposition recommendation:

The bridge shoulders will be reduced by 2'-0" on each side to conform to the GDOT policy on bridge widths. This implementation, along with the implementation of VE Alternate # 1.0, will reduce the bridge widths to 40'-0" gutter to gutter.

VE ALTERNATIVE #B-2.0
Extend Bridge 1 to 3-Span Arrangement and Eliminate Portions of Retaining Walls.

Disposition Recommendation: *(Select one)*

☒ **AGREE** ☐ **AGREE, WITH MODIFICATIONS** ☐ **DISAGREE**

Explain, comment, and/or discuss rationale for disposition recommendation:

Bridge No. 1 will be changed to a 3-span arrangement with end fill slopes as recommended and the MSE Walls will be eliminated.

VE ALTERNATIVE #B-4.0
Combine Bridge 2 and Bridge 3 into a Single Bridge Structure.

Disposition Recommendation: *(Select one)*

☐ **AGREE** ☐ **AGREE, WITH MODIFICATIONS** ☒ **DISAGREE**

Explain, comment, and/or discuss rationale for disposition recommendation:

VE Alternatives #B-4.0 and #B-4.1 cannot both be implemented. Since the proposed grades will allow for a driveway connection, VE Alternative #B-4.1 will be completed.

VE ALTERNATIVE #B-4.1
Eliminate Bridge 3 and Provide Driveway to East Side of Bypass.

Disposition Recommendation: *(Select one)*

☒ **AGREE** ☐ **AGREE, WITH MODIFICATIONS** ☐ **DISAGREE**

Explain, comment, and/or discuss rationale for disposition recommendation:

Bridge No. 3 will be eliminated and a driveway will be added to the roadway plans to provide access to the adjacent facility.

Attachments:

PI 621340

- **Alternative #R-1.0 calculations**
- **Alternative #R-2.1 calculations**

ADJUSTED COST ESTIMATING WORKSHEET

PROPOSAL NUMBER:	R-1.0	PI #:	621340-

ORIGINAL DESIGN

ITEM	SOURCE CODE	U/M	QTY	UNIT COST	TOTAL COST
Pavement - Sta 107+30 to 465+00	7	SY	246,416.00	$ 48.07	$11,845,217.12
Earthwork - Unclass Excav.	1	CY	627,570.00	$ 6.00	$3,765,420.00
Earthwork - Rock	1	CY	209,190.00	$ 30.00	$6,275,700.00
Right-of-Way (Reduction)	1	acre	4.55	$ 52,500.00	$238,875.00
				SUBTOTAL - COST TO PRIME	$22,125,212.12
				MARKUP	$0.00
				TOTAL CONTRACT COST	$22,125,212.12

ADJUSTED PROPOSED DESIGN

ITEM	SOURCE CODE	U/M	QTY	UNIT COST	TOTAL COST
Pavement - Sta 107+30 to 399+00	7	SY	200,949.00	$ 48.07	$9,659,618.43
Pavement - Sta 399+00 to 465+00	7	SY	27,867.00	$ 48.07	$1,339,566.69
Pavement - Passing Lane Locations from Sta 399+00 to 465+00	7	SY	0.00	$ 48.07	$0.00
Earthwork - Unclass Excav.	1	CY	591,553.00	$ 6.00	$3,549,318.00
Earthwork - Rock	1	CY	167,352.00	$ 30.00	$5,020,560.00
				SUBTOTAL - COST TO PRIME	$19,569,063.12
				MARKUP	$0.00
				TOTAL CONTRACT COST	$19,569,063.12

Difference [Original - Adjusted Proposed] **$2,556,149.00**

SOURCES

1. Project Cost Estimate
2. MBP Estimate Database
3. GDOT Item Mean Summary
4. Means Estimating Manual
5. Richardson's Estimating Manual
6. Vendor (Specify)
7. Other (See Calculation)

ADJUSTED PROPOSED CALCULATIONS

PROPOSAL NUMBER:	R-1.0	PI #:	621340-

Proposed Change

5 Lane Section Sta 107+30 to 399+00 with 62 feet Width of Pavement

Length =	29170.00	feet							
Width =	62	feet							
Area =	29170	x	62	=	1808540	SF	=	200949	SY

3 Lane Section Sta 399+00 to 465+00 with 38 feet Width of Pavement

Length =	6600.00	feet							
Width =	38	feet							
Area =	6600	x	38	=	250800	SF	=	27867	SY

Passing Lanes

NB #1	Included in the Station Range for the 5-Lane Section								
SB #1	Included in the Station Range for the 5-Lane Section								
SB #2	Included in the Station Range for the 5-Lane Section								
Length of Taper =	660	feet							
Legnth of Passing Lane=	800	feet							
Lane Width =	12	feet							
Taper Area =	660	x	12	=	7920	SF	=	880	SY
Passing Lane Area=	800	x	12	=	9600	SF	=	1067	SY
Total for 0 locations = (	1067	+	880	) x	0		=	0	SY

ADJUSTED PROPOSED CALCULATIONS

PROPOSAL NUMBER:	R-1.0	PI #:	621340-

Earthwork Reduction

The VE Study team made the assumption a reduction in pavement by 24 feet reduces earthwork by 20% for the following Unclassified Excavation (205-0001) and Rock Excavation (205-0210)

For purposes of adjusting the estimated cost savings in response to the VE Proposal, earthwork is assumed to be reduced by 20% per linear foot from the original design.

VE Proposal Length of 3 Lane Section:	23,000
Adjusted Length of 3 Lane Section:	6,600

205-0001 - Unclassified Excavation

VE Proposal Earthwork Savings	627570	-	502056	=	125514	CY
VE Proposal Earthwork Savings per linear foot of the 3 Lane Section	125514	/	23,000	=	5.46	CY / LF
Adjusted Earthwork Savings	5.46	x	6,600	=	36017	CY
Original Design					627,570.00	CY
Adjusted Design	627,570.00	-	36017	=	591,553.00	CY

205-0210 - Rock Excavation

VE Proposal Earthwork Savings	209190	-	167352	=	41838	CY
VE Proposal Earthwork Savings per linear foot of the 3 Lane Section	41838	/	6,600	=	6.34	CY / LF
Adjusted Earthwork Savings	6.34	x	6,600	=	41838	CY
Original Design					209,190.00	CY
Adjusted Design	209,190.00	-	41838	=	167,352.00	CY

R/W Reduction

Assumed R/W along 3-lane is reduced from 120' (from 150' for 5-lane)
6,600 LF x 30' width reduction = 198,000 SF/43,560 SF/acre = 4.55-acre R/W Reduction

ADJUSTED COST ESTIMATING WORKSHEET

PROPOSAL NUMBER:	R-2.1	PI #:	620490-

ORIGINAL DESIGN

ITEM	SOURCE CODE	U/M	QTY	UNIT COST	TOTAL COST
Asphalt Shoulder (Reduction)	7	SY	33,333.33	$ 20.14	$671,294.17
				SUBTOTAL - COST TO PRIME	$671,294.17
				MARKUP	$0.00
				TOTAL CONTRACT COST	$671,294.17

ADJUSTED PROPOSED DESIGN

ITEM	SOURCE CODE	U/M	QTY	UNIT COST	TOTAL COST
Asphalt Pavement (Addition)	7	SY	13,333.33	$ 20.14	$268,517.67
				SUBTOTAL - COST TO PRIME	$268,517.67
				MARKUP	$0.00
				TOTAL CONTRACT COST	$268,517.67

Difference [Original - Adjusted Proposed] **$402,776.50**

SOURCES

1. Project Cost Estimate
2. MBP Estimate Database
3. GDOT Item Mean Summary
4. Means Estimating Manual
5. Richardson's Estimating Manual
6. Vendor (Specify)
7. Other (See Calculation)

ADJUSTED PROPOSED CALCULATIONS

PROPOSAL NUMBER:	R-2.1	PI #:	620490-

Current Design Pavement for Paved Shoulder Only Cost Calculations (10' Partial Depth)

310-1101:	6 " GAB	=	0.34	tons/SY		x	$ 19.83	/ton	=	$	6.74	/SY
402-3139:	220 #/SY Asph 19mm	=	(220#/2,000#)			x	$ 68.25	/ton	=	$	7.51	/SY
402-3130:	165 #/SY Asph 12.5mm	=	(165#/2,000#)			x	$ 69.61	/ton	=	$	5.74	/SY
413-0750:	2 layers tack coat=	0.035	gal/SY/layer	x	2	x	$ 2.09	/gal	=	$	0.15	/SY

Total pavement cost = **$ 20.14 /SY**

Station 535+00 (Begin By-Pass) to Station 685+00 (End of 3 Lane Section) =15,000 LF

15,000 LF x 20 LF = 300,000 SF /9 = 33,333.33 SY

Adjusted Design Pavement for Paved Shoulder Only Cost Calculations (4' Partial Depth)

310-1101:	6 " GAB	=	0.34	tons/SY		x	$ 19.83	/ton	=	$	6.74	
402-3139:	220 #/SY Asph 19mm	=	(220#/2,000#)			x	$ 68.25	/ton	=	$	7.51	
402-3130:	165 #/SY Asph 12.5mm	=	(165#/2,000#)			x	$ 69.61	/ton	=	$	5.74	
413-0750:	2 layers tack coat=	0.035	gal/SY/layer	x	2	x	$ 2.09	/gal	=	$	0.15	

Total pavement cost = **$ 20.14 /SY**

Station 535+00 (Begin By-Pass) to Station 685+00 (End of 3 Lane Section) =15,000 LF

15,000 LF x 8 LF = 120,000 SF /9 = 13,333.33 SY

Preconstruction Status Report

PI Number: 621340- **SR 5 FM SR 2/BLUE RIDGE N TO PROP MCCAYSVILLE BYP NR CR 138**

COUNTY:	Fannin	**MPO:**	Not Urban	**PRIORITY CD:**			
LENGTH (MI):	8	**TIP #:**		**DOT DIST:**	6		
PROJ NO:	NH000-0057-01(010)	**MODEL YR:**		**CONG. DIST:**	009		
PROJ MGR:	Law, Nicole S.	**TYPE WORK:**	Widening	**BIKE:**	Y		
AOHD INITIALS:	KWN	**CONCEPT:**	WIDEN & RECONST	**MEASURE:**	E		
OFFICE:	Program Delivery	**PROG TYPE:**	Reconstruction/Rehabilitation	**SUFF:**			
CONSULTANT:	Consultant Design (DOT contract)	**BOND PROJ:**					
SPONSOR:	GDOT	**DESIGN FIRM:**	Jacobs Civil, Inc.				

BASELINE LET DATE:	9/16/19	**MGMT LET DATE:**	9/15/19	Print Date 1/11/17
SCHED LET DATE:	4/1/21	**MGMT ROW DATE:**	6/17/17	Page 2
LIGHTING TYPE:	None	**WHO LETS?**	GDOT Let	
ENV DOC TYPE	GEPA	**LET WITH:**		
ENV CONSULTANT	Jacobs			

BASE START	BASE FINISH	TASKS	START DATE	FINISH DATE	ACTUAL START	ACTUAL FINISH	%
1/19/16	4/3/17	Concept Development Summary	7/28/17	10/15/18			0
8/5/16	4/3/17	PAR Summary	2/22/18	10/15/18			0
6/24/16	6/24/16	PM Submit Concept Report	1/11/18	1/11/18			0
8/30/16	**8/30/16**	**Management Concept Approval Complete**	3/19/18	3/19/18			**0**
3/1/16	9/8/16	VE Study Summary	6/28/16	11/30/17	6/28/16		69
1/31/17	1/31/17	Public Information Open House Held	8/10/18	8/10/18			0
2/9/16	4/27/17	Environmental Activities Summary (11412 through 134	8/18/17	11/7/18			0
2/9/16	10/31/16	Environmental Resource Identification Summary	8/18/17	5/17/18			0
4/12/16	9/2/16	Database Summary	10/24/17	3/22/18			0
9/6/16	1/19/17	Preliminary Roadway Plans (consultant design)	3/23/18	7/31/18			0
6/7/17	6/5/18	Submit Preliminary Plans to Utilities for Impacted Railroads	12/20/18	12/18/19			0
9/20/16	2/2/17	Preliminary Bridge Design Summary	4/6/18	8/14/18			0
2/9/16	6/19/17	UST and HW Summary	8/18/17	1/4/19			0
3/24/17	3/24/17	PFPR Inspection	10/4/18	10/4/18			0
2/3/17	3/30/17	ROW Plans Preparation	8/15/18	10/11/18			0
3/31/17	**5/26/17**	**ROW Plans Final Approval**	10/12/18	12/11/18			**0**
5/10/17	5/25/17	L & D Approval	11/21/18	12/10/18			0
4/7/17	6/21/19	ROW Acquisition Summary	10/19/18	1/7/21			0
6/5/17	6/5/17	ROW Authorization	12/18/18	12/18/18			0
9/13/16	2/16/17	Soil Survey Summary	3/30/18	8/28/18			0
2/3/17	10/26/17	BFI Report Summary	8/15/18	5/14/19			0
5/9/17	9/28/17	Final Construction Plans	11/20/18	4/16/19			0
7/5/17	12/28/17	Final Bridge Plans Preparation	1/22/19	7/11/19			0
12/31/18	6/20/19	404 and Buffer Variance (BV) Permits LOE	7/13/20	1/6/21			0
7/12/18	7/12/18	FFPR Inspection	1/29/20	1/29/20			0
7/8/19	7/8/19	Submit Final Plans	1/22/21	1/22/21			0

Phase	Approved	Proposed	Cost	Fund	Status	Date Auth
PE	1993	1993	$0.00	315	AUTHORIZED	7/30/92
PE	2013	2013	$0.00	L980	AUTHORIZED	7/30/92
PE	2016	2016	$2,000,000.00	HB170	AUTHORIZED	7/30/92
ROW	2018	2018	$15,056,000.00	HB170	PRECST	
CST	2020	2020	$53,453,680.10	HB170	PRECST	

COST EST AMTS

PE	$2,000,000.00	8/28/15
ROW	$15,056,000.00	2/19/16
CST	$53,453,680.10	2/19/16

STIP AMOUNTS

Activity	Cost	Fund
PE	$0.00	315
PE	$1,180,326.00	HB170
PE	$2,000,000.00	L980
ROW	$13,327,000.00	HB170
CST	$0.00	HB170

Bridge: BRIDGE REQUIRED

Conceptual Design: TO w/Jacobs for preliminary plans and EA

Design: 5/3 Lane Section under review w/operational improvements/Updating Traffic

EIS: On Sched Cert for Sept 2019 Let | State funded|Burgess-Cox 12Dec2016

EMG: REFLY6429/'05; FLY FOR MAPPING 3/2012 6803

Engr Services: VE with 620490- Held Aug 29-Sept1,2016

LGPA: FANNIN SGN DO UTIL 4-16-97|REQ BLUE RIDGE DO UTIL 4-14-97|RESCISSION LETTER SENT TO BLUE RIDGE & FANNIN 3-13-08.

PDD: CONCEPT WIDENING BY OEL. 3/17/03. Finish concept then HOLD. 3/11/04.

Planning: This project requires bicycle facilities. North GA Reg Bike/Ped Plan 2005. Amy Goodwin 404-657-6692

Prog. Develop: PREV CANCELLED DUE LACK OF SUPPORT PER DIR OF PRECST 10-05

Programming: STATE FUNDED NON-BANK PROJECT|CONFIRMED EXEMPT PER FHWA 6-1-2014|#1/P=7-8-99|PREV ADDED ON 08/15/1991|#2 5-09|#3 4-2010|#4 12-2010|#5 4-2011|#6 10-2012|#8 1-2013|#9 2-2013|#10 10-2015

Railroad: NO

ROW: 27 months per KTA

STIP: Project will provide additional capacity to improve mobility and reduce congestion. Project will help enhance economic development and will reduce crash frequency.

Traffic Op: KBH:SEND PLANS FOR SIGN & MKG WHEN 50% COMP 8/11/92 * $

Utility: 7/28/16 need plans

Project Manager

STATE FUNDED ONLY
Contact: Ryan Trick/JACOBS/404.978.7431/
ryan.triick@jacobs.com
Scope: Passing lanes, improvements. Project designed with 620490- for LT

Status: CTM 9/16/16, Working towards PFPR July 2017 & ROW Sept 2017

Schedule: VE held Aug-16, PIOH held Oct-16
Next Milestone: Concept approval. PAR
Risk: schedule
Budget:
-In house PE $40K, Contract $98K
MPOPD1600895 exp 5/15/21
NSL 12/22/16

Pre Parcel CT:	150	**Total Parcel in ROW System:**		**Cond Filed:**		**Acquired by:**	DOT	**DEEDS CT:**
Under Review:		**Options Pending:**		**Relocations:**		**Acquisition MGR:**	
Released:		**Condemnations - Pend:**		**Acquired:**		**R/W Cert Date:**	

Preconstruction Status Report

PI Number: 620490- **MCCAYSVILLE BYPASS FROM SR 5 TO TENNESSEE STATE LINE**

COUNTY:	Fannin	**MPO:**	Not Urban	**PRIORITY CD:**	
LENGTH (MI):	2.05	**TIP #:**		**DOT DIST:**	6
PROJ NO:	NH-057-1(11)	**MODEL YR:**		**CONG. DIST:**	009
PROJ MGR:	Law, Nicole S.	**TYPE WORK:**	Roadway Project	**BIKE:**	N
AOHD INITIALS:	KWN	**CONCEPT:**	WIDEN & RECONST	**MEASURE:**	E
OFFICE:	Program Delivery	**PROG TYPE:**	New Construction	**SUFF:**	
CONSULTANT:	Consultant Design (DOT contract)	**BOND PROJ:**			
SPONSOR:	GDOT	**DESIGN FIRM:**	Jacobs Civil, Inc.		

BASELINE LET DATE:	6/21/19	**MGMT LET DATE:**	6/15/19	Print Date 1/11/17	
SCHED LET DATE:	1/7/21	**MGMT ROW DATE:**	9/17/17	Page 1	
LIGHTING TYPE:	None	**WHO LETS?**	GDOT Let		
ENV DOC TYPE	GEPA	**LET WITH:**			
ENV CONSULTANT	Jacobs				

BASE START	BASE FINISH	TASKS	START DATE	FINISH DATE	ACTUAL START	ACTUAL FINISH	%
1/19/16	4/3/17	Concept Development Summary	7/28/17	11/6/18			0
8/5/16	4/3/17	PAR Summary	3/16/18	11/6/18			0
6/24/16	6/24/16	PM Submit Concept Report	1/11/18	1/11/18			0
8/30/16	**8/30/16**	**Management Concept Approval Complete**	3/19/18	3/19/18			0
3/1/16	9/8/16	VE Study Summary	6/28/16	11/30/17	6/28/16		69
1/31/17	1/31/17	Public Information Open House Held	8/10/18	8/10/18			0
2/9/16	**7/24/17**	**Environmental Activities Summary (11412 through 134**	7/11/16	3/4/19	7/11/16		0
2/9/16	2/1/17	Environmental Resource Identification Summary	7/11/16	9/5/18	7/11/16		31
5/12/16	10/4/16	Database Summary	11/27/17	4/20/18			0
10/5/16	3/31/17	Preliminary Roadway Plans (consultant design)	4/23/18	10/12/18			0
10/2/17	9/28/18	Submit Preliminary Plans to Utilities for Impacted Railroads	4/18/19	4/15/20			0
12/6/16	5/30/17	Preliminary Bridge Design Summary	6/20/18	12/12/18			0
2/9/16	8/23/17	UST and HW Summary	8/18/17	3/12/19			0
7/20/17	7/20/17	PFPR Inspection	2/6/19	2/6/19			0
5/31/17	7/12/17	ROW Plans Preparation	12/13/18	1/29/19			0
7/26/17	**9/20/17**	**ROW Plans Final Approval**	2/12/19	4/8/19			0
9/5/17	9/20/17	L & D Approval	3/22/19	4/8/19			0
8/2/17	3/27/19	ROW Acquisition Summary	2/19/19	10/6/20			0
9/27/17	9/27/17	ROW Authorization	4/15/19	4/15/19			0
10/5/16	5/22/17	Soil Survey Summary	4/23/18	12/5/18			0
5/31/17	2/27/18	BFI Report Summary	12/13/18	9/9/19			0
9/1/17	1/31/18	Final Construction Plans	3/21/19	8/12/19			0
10/30/17	4/24/18	Final Bridge Plans Preparation	5/16/19	11/5/19			0
10/1/18	3/27/19	404 and Buffer Variance (BV) Permits LOE	4/16/20	10/6/20			0
11/6/18	11/6/18	FFPR Inspection	5/22/20	5/22/20			0
4/11/19	4/11/19	Submit Final Plans	10/22/20	10/22/20			0

Phase	Approved	Proposed	Cost	Fund	Status	Date Auth
PE	1998	1998	$43,253.25	Q05	AUTHORIZED	4/22/13
PE	2013	2013	$1,500,000.00	M240	AUTHORIZED	4/22/13
PE	2016	2016	$1,109,955.00	HB170	AUTHORIZED	4/22/13
ROW	2018	2018	$7,605,000.00	HB170	PRECST	
CST	2020	2020	$31,313,161.22	HB170	PRECST	

COST EST AMTS

PE	$2,653,208.25	8/28/15
ROW	$7,605,000.00	9/19/16
CST	$31,313,161.22	9/19/16

STIP AMOUNTS

Activity	Cost	Fund
PE	$1,109,955.00	HB170
PE	$1,500,000.00	M240
PE	$0.00	Q05
ROW	$496,000.00	HB170
CST	$0.00	HB170

Bridge: BRIDGE REQUIRED

Design: TO w/Jacobs for preliminary plans and EA

EIS: On Sched Cert for June 2019 Let | state funded|Burgess-Cox 12Dec2016

EMG: REFLY 6429/05; MAP 6803 3/20/12; PROJECT ON HOLD AS PER PDD

Engr Services: VE w/621340- Held Aug29-Sept1,2016

LGPA: FANNIN SGN DO UTILITIES 4-16-97.

PDD: WORK CONCEPTw/621340.OEL RESPONS FOR CONCPT.NEED BI-STATE AGMT.9/28/99.No activty9/15/03.Finish concept then HOLD3/11/04

Planning: Project will provide additional capacity to improve mobility and reduce congestion. Project will help enhance economic development and will reduce crash frequency.

Programming: STATE FUNDED NON-BANK PROJECT|CONFIRMED EXEMPT PER FHWA 6-1-2014|7-8-99|PE FV 7-08|PREV AUTH 7-3-97 AS NH-057-1(11)|PREV CANCELLED - LACK OF SUPPORT PER DIR OF PRECST 10-05|ADDED BACK 5-2010|PE 1625 12-17-2015

Railroad: Project will cross RR in Tennessee. Tennessee Overhill Heritage Association (THOX)owner, RR Coordination required.

ROW: 27 months per KTA

STIP: Project will improve mobility and connectivity within the transportation network. Project will also enhance economic development opportunities locally and within the region.

Traffic Op: KBH:SEND PLANS FOR SIGN & MKG WHEN 50% COMPL 9/18/91

Utility: Need plans 7-23-14

Project Manager

STATE FUNDED ONLY
Contact: Ryan Trick/JACOBS/404.978.7431/
ryan.trick@jacobs.com
Scope: Bypass to eliminate truck traffic in downtown area. Project designed with 621340- for LT.

Status: CTM 9/16/16, Working towards PFPR July 2017 & ROW Sept 2017

Schedule: VE held Aug-16, PIOH Held Oct-16
Next Milestone: Concept approval, PAR

Risk: Tying/bldging in TN, archeology concerns

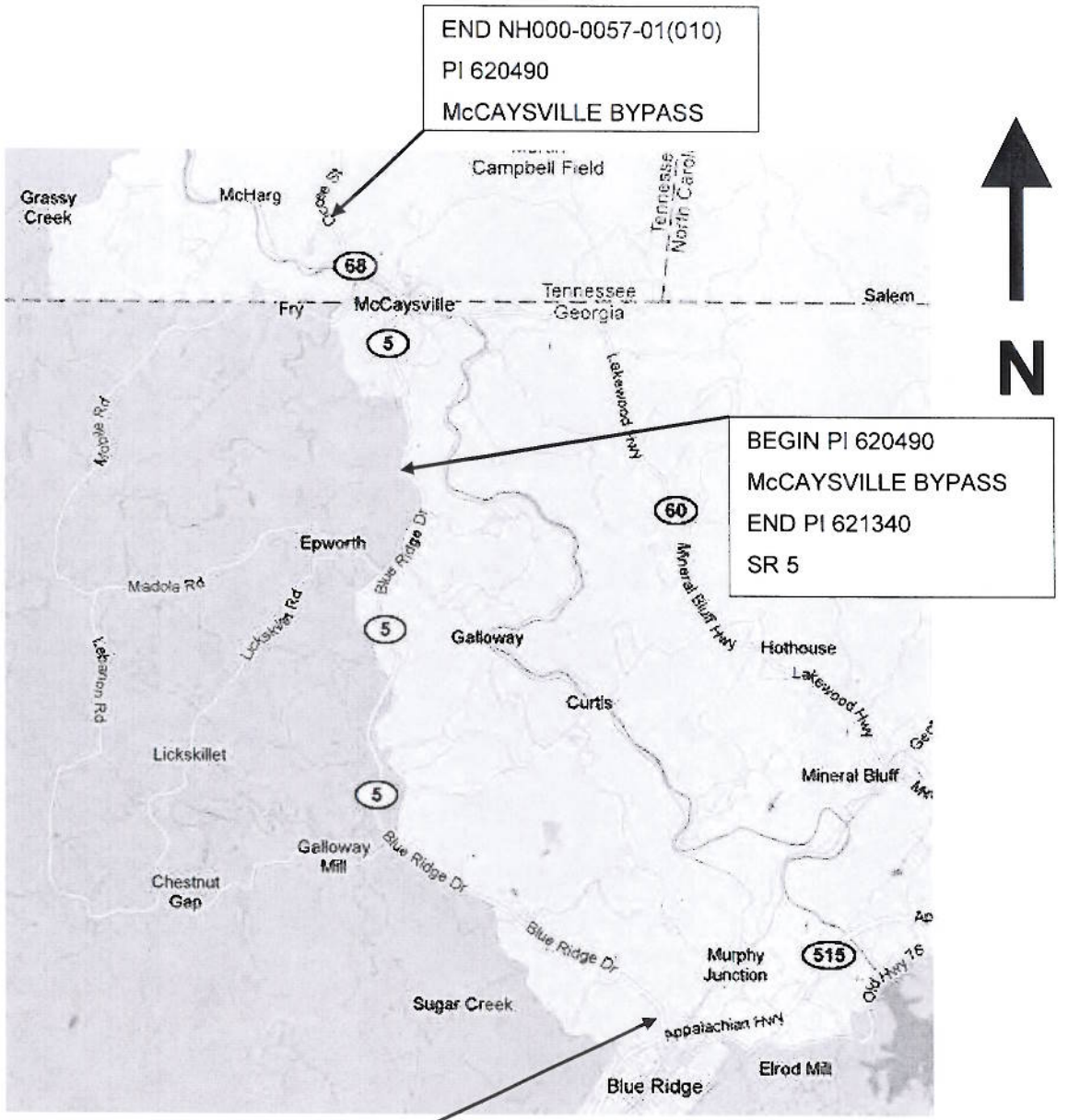
Budget:
-In house PE $388K, Contract $570K
-Contract PKC, MPOPD1600895 exp 5/15/21
CST CE submitted 8/31/16
NSL 12/22/16

Pre Parcel CT:	125	**Total Parcel in ROW System:**	31	**Cond Filed:**	0	**Acquired by:**	DOT	**DEEDS CT:**	0
Under Review:	1	**Options Pending:**	0	**Relocations:**	0	**Acquisition MGR:**			
Released:	0	**Condemnations - Pend:**	0	**Acquired:**	0	**R/W Cert Date:**			

Georgia Department of Transportation

PROJECT LOCATION MAP

SR 5 & McCAYSVILLE BYPASS



621340- and 620490- Fannin - SR 5 - VE Study Alternative Responses

Erik Rohde 11/8/2016
Matt Sanders 11/8/2016
Ryan Triick 12/8/2016

General Comment: As discussed at the Concept Team Meeting a Design Variance is needed for the flush median on the Rural Principal Arterial. If the Design Variance is not approved, then many if not most of the VE Alternatives are no longer valid or accurate.
If that does occur, a VE Reversal will be required when appropriate at that time.
Jacobs: Will address VE Reversals on this and other alternatives as appropriate during design development.

621340- Alternatives:

For Alternative R-1.0 assuming the 5-lane section will extend to Station 399+00 which is the most conservative from a cost savings perspective and includes no passing lanes in the remaining 5-lane section that will become a 3-lane section.
See comments on Page 2 about the attached calculations worksheets.
Jacobs: In the calculation spreadsheet, the assumption was made that the 5-lane section ended at Sta 399+00. No changes to be made.

For Alternative R-2.1 which is the 11-feet wide inside lanes on the 5-lane section if the suggestion for R-1.0 above is used no changes are needed to the proposed savings for R-2.1.
Please change to "Agree, with Modifications" and include the new adjusted savings amount you re-calculate so it agrees with the most conservative case mentioned in Alt. R-1.0 (see above).
Jacobs: We have made the requested change and included the revised cost savings in the comments.

For Alternative R-3.0 "Agree, With Modifications" is checked but there are no apparent modifications. Suggest something like "Agree, With Conditions" in which the condition is obtaining the Design Variance. Check the GDOT Design Policy Manual to ensure a Design Variance is actually required. GDOT basically defers to the Green Book for shoulder width criteria. Please note the Green Book criteria is dependent on whether or not the rural arterial is undivided or divided which goes back to the Design Variance status for the flush median.
Please change box to "Agree with Conditions."
Jacobs: Will change "MODIFICATIONS" to "CONDITIONS".

For Alternative R-4.0 "Agree, With Modifications" is checked but something like "Agree, With Conditions" may be more appropriate in which the condition is obtaining approval for the design speed change to 45 mph. If the design speed decision is 55 mph the discussion about significant impacts in specific locations may require Design Exceptions for these locations is not relevant to the VE Alternative.
Please change box to "Agree with Conditions."
Jacobs: Will change "MODIFICATIONS" to "CONDITIONS".

620490- Alternatives:

For Alternative R-2.1 is there any reason the VE Alternative 4-feet wide paved outside shoulder cannot be reduced depth like is proposed for the 5-lane section on 621340-?

Since there was no outstanding reason from the VE Team to require full depth shoulders, please change R-2.1 to "Agree with Modifications" and include the new savings amount you re-calculate for a reduced depth 4-feet wide shoulders in order to match the other project.
Jacobs: Will change to "Agree with Modifications" and provide a cost savings calculation.

For Alternative R-5.0 "Agree, With Modifications" is checked but the only potential modification is the Station where the tie-in might occur. Since the responses indicate that the VE Team proposed station appears realistic I think just checking "Agree" is warranted.
Change this to the "Agree" box.
Jacobs: Will change to "Agree".

VE Alternatives B-1.0 and B-2.0 can also be changed to the "Agree" box, since there are no modifications in cost savings.
Jacobs: Will change to "Agree".

Calculation Worksheet Attachment comments:

- The Cost Estimating Worksheets incorrectly have a $ symbol in front of the numeric quantities.
  Please remove the "$" from the numeric quantities column.
  Jacobs: Removed "$" from the quantity column.

- Passing Lanes section comments:

  - The calculated area for the length of taper is incorrect. The taper width goes from 0 to 12-feet but the calculation uses a constant 12-feet width.
    Jacobs: Updated calculation spreadsheet as recommended. The cost will not change since no passing lanes are proposed using the conservative approach with the 5-lane section.

  - The 800-feet long passing lane used here and in the VE Study Report are at best the very bare minimum length in the Green Book. If passing lanes are included see Green Book Section 3.4.4.

The above comments about the passing lanes were included to help prevent some possible confusion and were intended for your information going forward. However, since you chose to implement the most conservative savings amounts for Alternative R-1.0 and R-2.1 this portion of your calculations for the passing lanes can actually be removed at this time. I understand that there is still a potential for some possible changes after the traffic study is completed, but for the sake of this VE Implementation it is most prudent to go with what you have documented now.

Jacobs: Agree. If passing lanes are proposed on this project, the length(s) will be determined using the Green Book.